Uircuit Court of Appeals

For the Ninth Circuit.

Apostles

(In 7 Volumes.)

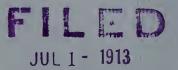
MATSON NAVIGATION COMPANY, a Corporation,
Appellant,

VS.

UNITED ENGINEERING WORKS, a Corporation,
Appellee,

VOLUME VI. (Pages 1905 to 2304, Inclusive.)

Upon Appeal from the United States District Court for the Northern District of California, First Division





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- Q. Did Mr. Siverson or Mr. Wiliamson or any of these parties consult with you during the time these repairs were being made?
 - A. Yes, talked over the various jobs, both of them.
 - Q. How do you mean talked over the various jobs?
 - A. Discussed them.
- Q. Discussed them incidentally or as a part of the business of doing the work?
- A. No, I had no authority to order any work done.
- Q. Then the discussions you are speaking of were only side talk? A. That is all.
- Q. Now, with reference to testing the crank-shaft for alignment, will you just tell us how you would do it, if you had control of the job?
 - A. In this particular case?
- Q. Yes, in this particular case. That is certainly all we are talking about.
- A. I consider I give that shaft the best test possible in the running of it for three months.
 - Q. Is that your only answer?
 - A. You can test it between centers on a lathe.
 - Q. Now, are you finished? A. Yes.
- Q. So you don't know how to test it by running a line?
- Mr. McCLANAHAN.—I object to the question upon the ground that the witness has not so stated.
- Mr. FRANK.—That is a good ground, but let the witness take care of that himself. [1647—1558]
 - Mr. McCLANAHAN.—He can do it.
 - Mr. FRANK.—After the suggestion is made; yes.

A. And I want to modify my answer to the other, that an absolute test of the truth of that shaft could not be got between the centers of a lathe.

Q. Well, you have been criticising the mode in which this thing was tested on board the ship?

A. Yes.

Q. Now, I want to know how you would have done it? A. As I said, by running the shaft.

Q. That is the only way? A. Yes, sir.

Q. Did you tell that to Mr. Klitgaard when they were testing it on the ship?

A. I was not present when they tested it. I was there only when they were preparing to test it.

Q. You knew what they were going to do. W? y did you not advise Mr. Klitgaard?

A. I was in no position either to criticise or to advise.

Q. Do you think the work they did to prepare to test it involved no labor and could have been done by some man in 15 minutes—from that to an hour and a half? Is that right?

A. Did I say 15 minutes?

Q. You did. A. I don't think so.

Q. Well, then, correct it, if you did not.

A. I said from half an hour to an hour and a half. As far as I am personally concerned, had I been in charge of that work, I never would have cared to have tested that shaft.

Q. That is not the question now. You did not control it and did not advise the man who you say you were helping upon that job. I want to know

now if that is your opinion, that that could be tested in there without any labor, or involving but very little or no labor, and could have been done in from half an hour to an hour and a half. [1648—1559]

- A. The check that they took on the shaft, yes, but I don't mean to say that that would determine the truth of the shaft.
- Q. Then neither Mr. Klitgaard nor Mr. Putzar nor Mr. Siverson nor Mr. Williamson knew their business, did they?

 A. I did not say that.
- Q. They took considerable more time than that, did they not?
 - A. I don't know what time they took.
- C. Well, if they took more time than that, then they did not know their business?
- A. I won't say that. Probably their opinion differs from mine and possibly they know more about it than I do. I am simply telling you my opinion.
- Q. They would probably know more about the rest of the work too, how it should be done, and the length of time it should take, than you, would they not, Mr. Kinsman? A. Possibly.
- Q. Why not more than possibly? Don't you think it is more than possibly?
 - A. Some of these men yes and some no.
 - Q. Well, Klitgaard yes?
 - A. I don't know so much about that.
 - Q. Siverson yes?
- A. I have had, I think, more experience than Mr. Siverson.
 - Q. Well, Putzar yes?

- A. No, nor I won't take my hat off to Mr. Putzar either as an engineer or as a mechanic.
 - Q. Then you know more about it than all of them?
 - A. I did not say that.
- Q. Well, what did you mean, then, when you said some of them yes?
- A. I said possibly some of them knew more about it than I did. Lew Williamson has had far more experience than I have had.
- Q. And you don't think that Putzar or Klitgaard or Siverson have had more experience than you have had?

 A. In testing the truth of the shaft, no.
- Q. When did you ever test a shaft before, of that nature? $\lceil 1649-1560 \rceil$
 - A. Well, I have checked the lines of several shafts.
- Q. On some of these little steam schooners you were on? A. Yes.
 - Q. And that is all, is it? A. Yes.
- Q. You have testified there was no work done for that testing except running the line; that is what you testify to, is it? A. Yes.
- Q. How do you know that, when you were not there?
 - A. Well, I am testifying to what I know.
- Q. And you have also testified that you were not there during that time?
 - A. Nights and Sundays, no, I was not.
- Q. You have just told me that when they were testing the crank-shaft you were not present.
 - A. Yes, sir.
 - Q. What is that? A. I was not there.

- Q. Then how do you know what they did?
- A. I don't know.
- Q. You don't know? A. No.
- Q. Were you present when the intermediate shaft was taken out? A. Yes.
 - Q. When was that done?
- A. I should say after the job was probably 10 days old.
 - Q. After the job was 10 days old?
 - A. Yes, 8 to 10 days old.
 - Q. How long did it take them to take it out?
 - A. I don't recall the actual number of hours.
 - Q. Was it hours? A. Yes.
 - Q. And not days?
 - A. I don't remember the exact time.
- Q. You do not remember whether it was hours or days, do you? A. No, sir.

Mr. FRANK.—Well, I find I cannot follow this up with my notes. I will have to wait until I get the testimony [1650—1561] written up. It is now a quarter after 4.

Mr. McCLANAHAN.—Can't you proceed with your cross-examination?

Mr. FRANK.—No, I cannot, not in the shape it is in now.

Mr. McCLANAHAN.—Well, we will have to adjourn, then, until to-morrow morning at 10 o'clock.

(An adjournment was here taken until to-morrow, Thursday, November 2, 1911, at 10 A. M.) [1651—1562]

Thursday, November 2d, 1911.

C. C. KINSMAN, recalled for further cross-examination.

Mr. FRANK.—The nature of the record made yesterday afternoon, with the nature of the exhibits that have been introduced, makes it impossible for me to intelligently cross-examine this witness this morning. There is a great deal of technical matter in it, and matter of detail which is necessary for me to go over. Though I worked late last night and was at it again at 7 o'clock this morning, I have been unable to cover the ground, and for that reason I propose to postpone the further cross-examination of this witness until this afternoon, so that I may have an opportunity in the meantime to go over the record.

Mr. McCLANAHAN.—Your request, Mr. Frank, for a continuance until this afternoon is one that I dislike very much to decline to acquiesce to. I do not know that you fully appreciate that my time limit is rapidly expiring, and I do not think that the Court would favorably look upon the request for more time under the circumstances. Mr. Kinsman has been held here for this trial solely for several months and it is advisable on his account as well as on account of my client to get him through with. If you really think that by half-past one o'clock this afternoon you could do what you say you want to do I suppose I will have to consent, but I do it with great reluctance. For myself I cannot see the great detail which you have referred to that makes necessary so much labor to prepare for the cross-examina-

tion of this witness. The time-book introduced purports to be simply a copy of the original time-book. [1652—1563] If it is not a copy that is not very material. It can be found out on the argument. The summarization is not a very weighty matter. Aside from those two things I see nothing in his cross-examination that requires a very extended preparation for cross-examination.

Mr. FRANK.—I think the preparation for the direct examination occupied some two or three months. The preparation for the cross-examination ought to take two or three hours.

Mr. McCLANAHAN.—The preparation for the direct examination did not take two or three months. I think Mr. Kinsman and I were together on that matter for probably half an hour or an hour. You are speaking of Mr. Kinsman's preparation for his examination. That may have required a great deal of work because it is very laborious to go over that time-book. Cannot you, Mr. Frank, commence his cross-examination of the work that you have already gone over?

Mr. FRANK.—The proposition is this: I have some of this matter to go over to determine the extent of the cross-examination and I may determine not to cross-examine him after I have satisfied myself of this matter.

Mr. McCLANAHAN.—That is what I had concluded in my own mind as a guess, that you would not cross-examine Mr. Kinsman.

Mr. FRANK.—At present I am not determined on that question.

Mr. McCLANAHAN.—You do not think you want to go on now?

Mr. FRANK.—I do not think so. I think in all fairness I ought to have the opportunity to determine that question upon satisfying myself by means of these records as to the necessity of it.

Mr. McCLANAHAN.—If you insist upon it I shall have to consent. Shall we say half-past one? [1653—1564]

Mr. FRANK.—All right, half-past one will suit me.

Mr. McCLANAHAN.—I have put myself to a great deal of inconvenience to attend this morning's session. I have another matter that is now being attended to by Mr. Derby, which is out of his line. I ought to have attended to it.

Mr. FRANK.—You will have the chance now.

Mr. McCLANAHAN.—If you had notified me of this possible move I should have made my arrangements accordingly.

Mr. FRANK.—I was working up to the time I came down here, Mr. McClanahan, on it. I have not let any grass grow. I had hopes of going on this morning.

(A recess was here taken until 1:30 P. M. [1654 —1565]

AFTERNOON SESSION.

Mr. FRANK.—I think I will let Mr. Kinsman go.

[Testimony of Carl E. Klitgaard, for Respondent.]

CARL E. KLITGAARD, called for the respondent, sworn.

Mr. McCLANAHAN.—Q. What is your name?

- A. Carl E. Klitgaard.
- Q. How old are you? A. 35.
- Q. What is your business? A. Engineer.
- Q. How long have you held an engineer's license?
- A. Any grade?
- Q. Do you hold a chief engineer's license?
- A. Yes, sir.
- Q. How long have you held that?
- A. 6 or 7 years.
- Q. How long have you practiced your profession?
- A. About 11 years.
- Q. What ships have you been chief engineer of?
- A. The "Nevadan," the "Coronado," the "Rainier," and the "Hilonian."
- Q. Prior to your chiefship, what vessels did you sail on in the engine-room?
- A. The "Alaskan," the "Nebraskan," "Nevadan," "J. L. Luchenback," "Centennial," "Santa Ana," "Wiefield" and "Cleveland." I think that is about all.
- Q. Have you had any experience, Mr. Klitgaard, in repair work with the machinery of vessels?
 - A. Yes, sir.
- Q. Will you please tell us what your experience has been.
- A. All the vessels I have sailed on are old vessels and were all under repair most of the time.

- Q. What had you to do with the repair work?
- A. In some instances I had practically charge of the work.
- Q. What does "in charge of the work" mean—what does it include?
- A. Seeing that the work is done properly, in shipshape manner, taking care of the men, seeing that they do their work all right.
- Q. Have you had any experience in the matter of estimating the [1655—1566] value of repair work?
 - A. You mean prior?
 - Q. At any time in your life?
- A. Do you mean before the work has been done, or after the work has been done?
 - Q. Both ways; if you wish to put it so.
- A. I have given an estimate of what the work would be worth before it had been accomplished.
 - Q. What has been your experience in that line?
- A. All the work that was done to the "Hilonian" from the time of my arrival on her, I have given estimates on.
 - Q. Is that your only experience?
- A. No, sir. I have given estimates on some boiler work done to the "Santa Ana," and considerable on some new engine and boiler work done to the "Centennial."
 - Q. Any other?
- A. I gave an estimate of the work of converting the "Alaskan" from a coal-burner to an oil-burner in New York. I cannot think of any other just now.
 - Q. What was your experience in estimating for

(Testimony of Carl E. Klitgaard.)
the repair work on the "Hilonian"? Do you mean
the repair job that is now in controversy?

- A. No, sir.
- Q. What do you refer to?
- A. She had many repairs done to her prior to that, both large and small; such as installation of various parts of machinery; the general overhauling that she received three years before that.
- Q. Now, will you please state your experience with reference to making of estimates on the repair work done to the "Hilonian" during the period prior to the repairs in suit. State what estimates you have made.
- A. I made an estimate on the work done to the donkey, boiler work, the retubing of the donkey boiler.
 - Q. Right there, may I ask you who did that work?
- A. The retubing [1656—1567] was done by the United Engineering Works; the restaying was done by the Eureka Boiler Works. I also estimated—
- Q. I understand you to say that you estimated on the donkey boiler work which was finally done by the United Engineering Works.
 - A. Yes, sir; and also some work prior to that.
- Q. I want to know whether you estimated on that part of the work which was done by the United Engineering Works. A. The retubing?
 - Q. I don't know what it was.
 - A. No, sir, I did not estimate on that.
 - Q. What work was it you did estimate on?
 - A. On the restaying of the donkey boiler.

- Q. Proceed and tell us in detail what you estimated on.
- A. Reconstruction of the thrust on the steamer "Hilonian."
 - Q. Was that a contract job? A. Yes, sir.
 - Q. Who did the work on that?
 - A. The United Engineering Works.
- Q. What was the difference between your estimate and their contract?
- A. I cannot remember the exact figures; about \$40, I think."
 - Q. Not very much difference? A. No, sir.
 - Q. How much of a job was there, approximately?
 - A. Around \$700 or \$800.
- Q. Proceed with your statement of the estimates you have made, if there are any others.
- A. There are plenty of them, but they are so scattered. I gave Captain Matson an estimate for the installation of the circulating pump.
 - Q. By whom was that work done?
- A. That was afterwards let to the United Engineering works.
 - Q. Do you know the figure at which it was let?
 - A. \$1350.
- Q. Do you remember what your estimate was that was given to Captain Matson?
- A. Between \$1300 and \$1400, I told Captain Matson. I do not just remember the figures; it is quite a while ago. [1657—1568]
- Q. That is, it was a figure between \$1300 and \$1400? A. Yes, sir.

- Q. What other estimates have you made, if you can remember them?
- A. I do not remember having made any estimates of work that has later been let on contracts.
 - Q. Other than those that you have stated?
 - A. No, sir.
- Q. Irrespective of whether it was let on contract, have you done other estimating?
 - A. On the "Hilonian"?
 - Q. Yes. A. Yes.
- Q. When you say you have estimated on work, what do you mean by that?
- A. I mean that I have computed the cost of time and material in doing the job.
- Q. How long were you chief egineer of the "Hilonian"? A. About three years.
 - Q. When did your connection with her terminate?
- A. On September 24th, 1909—about; it might have been the 23d.
- Q. You were the chief engineer during the repairs in question at the United Engineering Works?
 - A. Yes, sir.
- Q. Were there specifications drawn for these repairs? A. Yes, sir.
 - Q. Who drew them? A. I did.
- Q. State whether at the time the specifications were drawn you were familiar with the condition of the machinery of the "Hilonian." A. Yes, sir.
 - Q. What were these specifications drawn for?
- A. For certain repairs and overhauling that was necessary to the engines of the "Hilonian."

- Q. State whether or no these necessary repairs were embodied in the specifications.
 - A. They were; yes.
- Q. What was the condition of the "Hilonian's" crank-shaft prior to the work done in suit?
 - A. Her crank-shaft was all right. [1658—1569]
- Q. Was there ever any question or dispute as to whether the crank-shaft was all right or not?
 - A. Yes, sir.
- Q. State what you know about that dispute prior to the letting of this work.
- A. I only know that Mr. Gray contended that the crank-shaft was bent or sprung and necessitated its removal to the shop to correct the error. That was a point that I contested very strongly right along.
- Q. Did you have any other talk with any other representative of the United Engineering Works about the crank-shaft?
- A. No, sir. I don't think I discussed the matter with anyone else. The idea seemed to me so utterly ridiculous that I did not want to put myself on record as having discussed it.
- Q. Did or did not the specifications which you drew provide for the removal of the shaft to the shop? A. Yes.
 - Q. Why?
- A. Because Mr. Gray had so impressed Captain Matson with the idea that the shaft was defective that Captain Matson thought it would be safest to call for its removal.
 - Q. You then consulted with Captain Matson about

(Testimony of Carl E. Klitgaard.) your specifications?

- A. Oh, yes; they were passed up to him for sanction.
- Q. Do you know whether during the progress of the work on the "Hilonian" any representative of the United Engineering Works had a copy of the specifications which you had drawn? A. Yes, sir.
 - Q. Who?
- A. Mr. Williamson, Mr. Siversen, and, I think, Mr. Nelson; I am not sure.
- Q. Who connected with the Matson Navigation Company had copies of the specifications drawn by you?
- A. Mr. Kinsman, Mr. Putzar, myself and Captain Saunders.
- Q. Do you know whether bids were asked for covering the specifications which you had drawn?
 - A. Yes, sir. [1659—1570]
 - Q. Do you know who bid on that work?
 - A. The Union, the Risdon and the United.
- Q. Were you present when the original bids were opened? A. Yes, sir.
- A. I think I was present in the office when the original bids were opened.
 - Q. What office do you refer to?
 - A. The Matson Navigation Company.
- Q. Who was present there representing the United Engineering Works? A. Mr. Gray.
 - Q. Who represented the other shops?
- A. Mr. Barnes, I think, represented the Union, and I think Mr. Petersen from the Risdon; I am not sure.

- Q. Who representing the Matson Navigation Company were there?
 - A. Captain Matson was there.
 - Q. Anyone else? A. Captain Saunders.
 - Q. Is that all?
 - A. As far as I remember, that is all.
 - Q. At that time was the contract let?
 - A. No, sir.
- Q. Were you present at that time when there was a conversation between Mr. Gray and Captain Matson?
- A. No, sir, I don't think I was. Captain Matson called Mr. Gray into his office and I went down to the ship.
 - Q. The bids were readvertised for, were they?
 - A. Yes, sir.
- Q. Were you present when the second bids were opened?
 - A. No, sir. I came up after they were opened.
 - Q. How did you happen to come up?
- A. Captain Saunders telephoned for me. We were receiving oil at that time and I could not get away just at the time he telephoned.
- Q. When you reached the office did you see anyone connected with the United Engineering Works there?
 - A. I met Harry Gray just as he was going out.
 - Q. Going out of what? [1660—1571]
 - A. Out of the office.
 - Q. Did you have any conversation with him?
 - A. I asked him about how business was, or some-

(Testimony of Carl E. Klitgaard.) thing like that. He said he had got the work.

- Q. What work?
- A. I think his words were "We have got the job."
- Q. Did you know what he referred to?
- A. Surely.
- Q. What was it?
- A. There was only one job in question, the specifications.
 - Q. What was the job? A. The contract job.
 - Q. The contract on the "Hilonian"?
 - A. Yes, sir.
- Q. After that did you have any conversation with Mr. Gray about the work and prior to the ship's going to the yards?
 - A. Yes, sir, several discussions.
 - Q. What were they about?
- A. About the work in general and what time the ship would be delivered at the yards; what I considered would be necessary to put the ship in seaworthy condition again, etc.
- Q. Do you know when the ship was taken to the yards? A. Yes, sir.
 - Q. When? A. August 23d, 1909.
 - Q. What time of the day, forenoon or afternoon?
- A. She left the dock about half-past 7 on Monday morning.
 - Q. Which dock? A. The Matson dock.
 - Q. On this side of the bay?
- A. Yes, sir; she would get over to the United Engineering Works about 9 o'clock.
 - Q. Prior to leaving the dock on this side of the bay

(Testimony of Carl E. Klitgaard.)
were any of the employees of the United Engineering
Works on the ship?

A. Yes.

- Q. What were they doing there?
- A. There were some working on the donkey boiler, and some of them were working on the contract job down below.
- Q. You mean by the contract job what? [1661—1572]
 - A. The contract specifications.
- Q. The specifications that you have been testifying to? A. Yes, sir.
- Q. The specifications that were let to the United Engineering Works? A. Yes, sir.
- Q. How soon after the ship reached the yards of the United Engineering Works was work commenced on the ship? A. Right away.
- Q. Who had charge of the mechanical end of the work for the Matson Navigation Company?
 - A. I did.
 - Q. Who for the United Engineering Works?
 - A. Mr. Williamson, I conclude.
 - Q. What was Mr. Kinsman's duty?
 - A. He was my first assistant.
 - Q. Do you know Mr. E. L. Putzar? A. Yes, sir.
 - Q. When did you first meet Mr. Putzar?
- A. A few weeks prior to the letting of the contract.
 - Q. Where did you meet him?
- A. Mr. Gray introduced him to me down at the United Engineering Works.
 - Q. What Gray?

- A. Mr. Harry Gray, the secretary of the United Engineering Works.
 - Q. By the way, do you know Mr. Gray?
 - Λ. Yes, sir; he is a personal friend of mine.
- Q. Was he a personal friend of yours at the time this work was being carried on?
 - A. Oh, yes, and has been for years.
- Q. Did Mr. Putzar have anything to do with this repair work on the "Hilonian"?
 - A. He was timekeeper.
- Q. Did you supervise his work at all of keeping time? A.No, sir.
 - Q. Did you know that he was keeping time?
 - A. I have seen him keep time.
 - Q. How did he do it?
- A. I have seen him writing into his time-book. [1662—1573]
 - Q. Is that what you mean by keeping time?
- A. That is the only way I have seen him keep it. He never checked the men on or off of the ship that I know of.
- Q. By his time-book, do you refer to this book "Curtiss' Exhibit No. 4"? (Pointing.)
- A. It was a book something like that. I never saw it at close enough quarters to be able to say.
- Q. Please look at that book. You could not tell whether that was his book or not? A. No, sir.
 - Q. You know his writing? A. No, sir.
- Q. You have seen this book a great many times, have you?

Mr. FRANK.—He never said he had seen this book before.

Mr. McCLANAHAN.—Q. I ask you if you have seen this book before. A. Yes, sir.

- Q. But you do not know if this was the book you saw him use at that time? A. No, sir.
 - Q. You saw him using a book similar to it?
 - A. Yes, sir, very similar.
 - Q. Where was he using it?
- A. In Mr. Williamson's office over at the United Engineering Works.
- Q. Did you ever have any conversation with Mr. Putzar in regard to that book or his use of it?
- A. I asked him what he was doing. "Keeping his time," he told me.
 - Q. What did you see that he was doing?
- A. As far as I remember, I saw him copying from some yellow slips like that where your pencil is on.
 - Q. This scratch paper? A. Yes, sir.
 - Q. Copying that where?
 - A. Copying from that something into this.
- Q. And by "this" you refer to the book which looks something like the book he had? A. Yes, sir. [1663—1574]
 - Q. Did Mr. Putzar have a room on the ship?
 - A. No, sir.
 - Q. Who did have?
- A. Mr. Kinsman—you just want the engineer's department? Mr. Kinsman and myself in the engineer's department.
 - Q. During the progress of the repairs on the "Hi-

lonian" who stayed on the ship at night of the crew of the "Hilonian". A. The engineer's crew.

- Q. I will not limit it to the engineer's crew.
- A. I think the mate and I were the only ones that stayed on board—Mr. Petersen.
 - Q. You were the only one of the engineer's crew?
 - A. Yes, sir, as far as I know.
 - Q. State how often you were on the ship at night.
- A. Pretty mostly every night; with the exception of four or five nights. I was on there every night.
- Q. Were you on there every night when work was being carried on by the United Engineering Works?
 - A. Yes, sir.
- Q. Did you ever see Mr. Putzar on the ship at night?
- A. I don't remember ever seeing him on at night; he may have been there, though.
- Q. Do you remember seeing him on the ship in the daytime? A. Yes.
- Q. Have you any knowledge of whether Mr. Putzar left the ship at the close of the day's work or not?
 - A. Whether he left the ship?
 - Q. Yes.
- A. I know on several occasions I have seen him take the train.
- Q. Do you know when Mr. Putzar reported for work in the mornings?
- A. Generally just about the time that the men turned to.
- Q. After the "Hilonian" was placed in the yards of the United Engineering Works was this question

(Testimony of Carl E. Klitgaard.)
of the necessity for the removal of the crank-shaft
determined?
A. Yes, sir.

- Q. Who determined it? [1664—1575]
- A. Mr. Gray and Mr. Williamson, Mr. Putzar and myself.
 - Q. How was it determined?
- A. Mr. Williamson and Mr. Putzar ran a line on the shaft in an endeavor to find out whether it was sprung or not.
 - Q. And what was the result of this endeavor?
- A. They decided that the line showed the shaft to be absolutely true.
- Q. Was there a time limit on the acceptance of the job by the United Engineering Works?
 - A. Yes, sir.
 - Q. What was it?
- A. 25 days from the time of the delivery of the vessel at their yards.
- Q. Do you know, Mr. Klitgaard, why on the morning of August 23d, 1909, the "Hilonian" was taken to the yards of the United Engineering Works?
 - A. Yes, sir.
 - Q. What was she taken there for?
- A. To have the repairs done under the specifications.
- Q. Do you know what, if anything, was done in preparation of receiving the "Hilonian" at the yards on the morning?
- A. They had a berth ready for her and men waiting for her to come in—Mr. Merriman and his gang.
 - Q. Do you know whether the United Engineering

Works or any representative of the works knew before the morning of August 23d that the "Hilonian" was going to their yards?

A. Yes, sir.

- Q. Who knew that? A. Mr. Gray.
- Q. Are you familiar with the work that was done to the "Hilonian" at the time, I mean when she was delivered to the United Engineering Works in August, 1909?

 A. Am I familiar with it?
 - Q. Yes. A. Yes, sir.
- Q. How long was the vessel at the works of the United Engineering Works?
 - A. 29 days, I think; I am not sure. [1665—1576]
- Q. In other words, do you know the date she left there?
 - A. She left the morning of the 22d of September.
- Q. Are you familiar with the work that was performed on the ship from August 23d to that time?
 - A. Yes, sir.
- Q. Was the work called for by the specifications which you drew carried out?
 - A. Not as it was on the original specifications, no.
- Q. If you are shown a copy of the specifications, can you tell what was departed from?
 - A. Yes, sir.
- Q. I show you "Respondent Sanders' Exhibit No. 1" and ask you if that paper contains a list of the specification work as drawn by you originally. Read it carefully, Mr. Klitgaard. A. Yes, sir.
- Q. Now, will you please take that exhibit and go through each item of the specifications and state wherein there were departures from the work called

(Testimony of Carl E. Klitgaard.) for by the items.

- A. In item 1 it says, in the latter part of that item, "enlarge studs on air pump, joint to condenser"; they were not enlarged, but additional studs were put in there.
 - Q. For what purpose?
- A. To answer the same purpose as enlarging the studs.
 - Q. Did you know of that change?
- A. Yes, sir. Mr. Williamson asked me if it would not be just the same to do that as enlarge the studs. I told him it would be immaterial to me, as long as we got the necessary strength there.
- Q. With that explanation, was the first item of the specifications carried out as called for?
 - A. Yes, sir.
 - Q. Proceed.
- A. The second item is "remove L. E. Valve and face. Plane seats of both, etc." That work was not found necessary.
- Q. What work? The work called for by specification 2?
- A. The work called for by the specifications, but in recompense [1666—1577] for that Mr. Williamson and I agreed that we would fit a 12-inch balance piston on top of the low-pressure valve, pipe it up to the condenser and lengthen the valve stems, fit the nuts, etc., that were found necessary to fit the new conditions. In other words, that was to be a recompense for the second item.
 - Q. I will ask you, Mr. Klitgaard, what you mean

by "recompense." What was the understanding?

- A. The understanding was that the work was being done in recompense for to keep the original specifications intact so that there would be no debits or credits.
 - Q. Under that item?
- A. Under that item; that the figures which they had given us for these original specifications would remain intact; that this work with the balance cylinder was to take the place of the second item which was not found necessary.
- Q. Who was present when that agreement was entered into?
- A. Mr. Williamson and I entered in that agreement, and it was subsequently put up to Captain Saunders; he referred it back to Captain Matson and reported to me that Captain Matson had said that as long as I thought it was all right, to go ahead with it. Mr. Williamson was present when he reported that to me. He asked Mr. Williamson if it would be all right.
 - Q. Who did?
- A. Captain Saunders did. He said, "Mr. Williamson said that was all right." Later I told Mr. Gray about it and he told me that any alterations or things of that nature that in future turned up, as long as Mr. Williamson was satisfied, he would be satisfied; that any agreement I came to with Mr. Williamson, as far as recompense matters were concerned, was all right.
 - Q. Did Mr. Gray then know of this recompense

(Testimony of Carl E. Klitgaard.)
work under this second item of the specifications?

- A. Yes, sir. I told him about it. That is how we came to discuss the matter. [1667—1578]
- Q. Now, Mr. Klitgaard, as an engineer do you know whether there is any material difference in the value of the work as called for under the second item of the specification and the recompense work which was done in place of that item?

Mr. FRANK.—I object to that as immaterial under the present state of the evidence.

A. No, sir.

Mr. McCLANAHAN.—Q. What do you mean by that answer, that you do know?

- A. No, sir, there is no material difference. The matter was figured very closely at the time.
 - Q. Who figured on the matter?
 - A. Mr. Williamson and myself.
 - Q. Pass on to the third item.
- A. The third item was completed as specified, No. 4—
- Q. Let me suggest to you, Mr. Klitgaard, that where appropriate you say the item was completed as called for with this exception, if there are any such, and that will save time.
- A. No. 4, "Make tight H. P. and L. P. Guides for water circulation, as specified." Instead of putting in these extra screw stays which it calls for here, heavier plates were put on the back of the guides. Instead of reconstrucing the H. P. and L. P. shoes, as the specification calls for, there were new castings made.

Q. By "castings" you mean new shoes, do you not?

A. New shoes were made and cast in the machine and rebabbitted. The agreement was between Mr. Williamson and myself that we would pay for the babbitting of the shoes; in other respects, the changes that had been made in this item were in recompense for what was not done under the item. Do you know what I mean?

- Q. What do you mean by saying, "We would pay for the babbitting of the new shoes"?
- A. We were to allow them for so much metal in the new shoes. [1668—1579]
 - Q. For what?
- A. Merely because if they had to cast new shoes instead of reconstructing the shoes it would come a little more expensive.
- Q. By reason of what? What would make it more expensive?
- A. By reason of the fact that patterns had to be made and new castings made, and a great deal more machining had to be done on them.
- Q. Now, to cover that extra expense, what was the agreement?
- A. The agreement was that we were to allow them the price of the challenge metal that was put on these shoes.
 - Q. In addition to the contract?
 - A. In addition to the contract.
 - Q. How was that agreement to leave item four?
- A. That was to leave item 4 intact with the exception of this challenge metal, which was an extra.

- Q. Who was that agreement made with?
- A. Mr. Williamson and myself.
- Q. Anyone present?
- A. Mr. Putzar was present.
- Q. Anyone else?
- A. No, sir; I don't think so. Mr. Gray was subsequently told about it.
 - Q. Who by? A. By myself.
- Q. What was the conversation with Mr. Gray with reference to it?
 - A. He said, "Oh, that is all right."
- Q. Was there any figuring done at that time as to the cost of the change? A. Yes, sir.
 - Q. Who did the figuring?
 - A. Mr. Williamson and myself.
- Q. Was the amount of challenge metal agreed upon or discussed? A. No, sir.
- Q. Do you know how much challenge metal was used for those shoes?
 - A. 72 or 74 pounds, I think; both of them.
 - Q. 72 or 74 pounds for each shoes?
- A. No, sir; it was 36 or 37 pounds in each shoe. [1669—1580]
 - Q. And how many shoes were there, two?
 - A. Two.
 - Q. Now, proceed.
 - A. No. 5—shall I read the item?
 - Q. Do not read the item, but just refer to it.
- A. The H. P. and L. P. eccentric straps, they were not remetalled or refitted. No work at all was done to the H. P. eccentric straps. In recompense for do-

ing this work the H. P. and L. P. eccentric straps were taken up to the shop and two brass liners were cast and fitted on to them. These liners were pocketed and filled with challenge metal. Then the whole was taken down to the ship and fitted to the sheaves.

- Q. With whom was this arrangement made?
- A. With Mr. Williamson, Mr. Putzar and myself.
- Q. Tell us the details of the arrangement.
- A. The arrangement was that all this work was done as I have described here, and the low pressure eccentric sheaves were to be trued up in the lathe and we were to allow them 300 pounds of bronze.
 - Q. What was that allowance for?
- A. Because otherwise the work would not be a fair compensation for the remetalling and refitting of the high pressure eccentric straps.
 - Q. Was any figuring done on that item?
- A. Yes, sir. Mr. Williamson and Mr. Putzar did all the figuring. I later figured it.
- Q. Who was it agreed to allow the 300 pounds of bronze? A. I agreed to that.
- Q. Did any representative of the United Engineering Works other than Mr. Williamson know of that recompense work?
- A. Mr. Gray come around after the work had been started. I explained the matter to him. He kicked so much about this—he said he was getting the worst end of it—that finally I agreed to allow them [1670—1581] for the challenge metal that was put in there, too.

- Q. Who did you agree with?
- A. With Gray. I told him I would give him the challenge metal too.
 - Q. What did he say?
 - A. "All right," he said, "let it go at that."
- Q. How much challenge metal was agreed to be allowed as an extra?
- A. I don't remember. It was weighed out; it seems to me now that that was in the sheaves, that there were 74 pounds of metal. I don't remember just now.
 - Q. Instead of in the shoes? A. Yes, sir.
- Q. You are not quite clear on that, that is, you are not clear whether it was 36 pounds in the shoes?
 - A. Or whether it was in the sheaves.
- Q. Have you any means of clearing your mind upon that point? A. I have my note-book.
 - Q. Where is it? A. In my pocket.
 - Q. Notes made at the time? A. Yes, sir.
- Q. Will you please refer to your note-book on the two points and see if you can refresh your mind?
- A. (After examination.) In the shoes it should be 46 pounds in each.
 - Q. Instead of 36? A. Yes, sir.
 - Q. What were in the eccentrics?
 - A. In the eccentrics 36 pounds of challenge metal.
 - Q. And how many eccentrics were there?
 - A. Just one set; but that is top and bottom.
 - Q. That would be 36 pounds in the whole job?
 - A. No, sir; that would be 72 pounds.
 - Q. Proceed now.

A. No. 6 was completed. No. 7, the iron column which was referred to in this item was not put in, but instead of that, in recompense, a bronze patch was fitted on. [1671—1582]

Q. With whom was that arrangement made?

A. Mr. Gray, Mr. Williamson, Mr. Putzar, Captain Saunders, and myself.

Q. Please give the details of the understanding with reference to No. 7?

A. Why, there was a good deal of discussion about that. Mr. Gray suggested the patch.

Q. Instead of what?

A. Instead of putting up the column, because the column would be so much in the road, and would not be a very easy thing to fit on; so he suggested putting a bronze patch on, fitting a bronze patch to the housing to take in the condenser.

Q. Give us the details of the discussion which followed his suggestion?

A. We all went down in the engine-room and looked the situation over, and finally decided that his suggestion was a very good one. I asked Mr. Gray if he was willing to put in this patch as a recompense for the iron column or if one would balance the other; he said yes, provided, that the weight of metal in this bronze patch did not amount to too much. We agreed that if it did not weigh over 900 pounds, it would be a fair recompense, and anything over 900 pounds we would pay for the extra bronze.

Q. Do you know if the patch did weigh over 900 pounds?

- A. No, sir, it did not. 898 pounds the patch weighed, according to my note-book.
 - Q. That is according to your note-book, you say?
 - A. Yes, sir.
- Q. Who was present when that final agreement was made?
- A. Mr. Gray, Mr. Williamson, Mr. Putzar, Captain Saunders and myself.
 - Q. Is that patch an entire substitute for No. 7?
- A. An entire substitute, yes. No. 8 was completed as specified.
 - Q. Proceed. [1672—1583]
- A. No. 9, the items, I think, were all done as specified, with the exception that the crank-shaft was not removed from the ship.
- Q. Was there any discussion as to any debit or credit on the contract for the nonremoval of the crank-shaft to the shop?
 - A. Yes, sir; that is why we had a timekeeper.
 - Q. Who told you that?
 - A. Captain Matson told me.
 - Mr. FRANK.—I move to strike that out.
- Mr. McCLANAHAN.—Q. That is all you know about it? A. That is all.
 - Q. Now, pass on.
 - A. No. 10 was completed as specified.
 - Q. Pass on.
- A. No. 11 also. No. 12 was completed with the exception that the engine-room tank-tops were not covered with cement. She was cemented under the boilers only.

- Q. Was the bitumastic solution put on the tanktops?
- A. Yes, sir, with the exception that it was not put in the crank-pits.
 - Q. Why was the cement not put on?
- A. Mostly due to a lack of time, etc. Those men were constantly in the road working on the tanktops.
 - Q. Proceed.
- A. No. 13 was completed as specified. No. 14, the windlass was not repaired, after a consultation with Captain Saunders and Mr. Williamson; we found it was not necessary; and instead of that as recompense, we put two channel iron supports under the break of the forecastle head.
 - Q. Can you give me the details of that agreement?
- A. Why, Captain Johnston was over one day, the former master of the "Hilonian," and we went up forward to look at the damage that the ship had sustained during some bad weather on some trip recently.
- Q. When you say "we," who do you refer to? [1673—1584]
- A. Captain Saunders, Captain Johnston and myself. Mr. Williamson was with us.
 - Q. Proceed.
- A. And while forward on the forecastle-head we discussed this matter of repairing the windlass. Captain Johnston was of the opinion that as the capstan on the forecastle-head was never used, it would be throwing money away to do that repair work, and

suggested that in place of that we put some extra supports under the forecastle-head. Consequently, Mr. Williamson and I talked the matter over and came to the conclusion that two channel iron stanchions under there would counterbalance this item of repairing the windlass.

- Q. Did you do any figuring on that?
- A. Mr. Williamson did a little figuring; I did not do any.
 - Q. Proceed. A. No. 15 was completed.
- Q. Did you ever during the progress of the work there have any understanding from Mr. Williamson or from Mr. Gray or from any other representative of the United Engineering Works that the specifications under which their bid had been accepted were not to be followed out, or were to be disregarded except in the particulars in which you have testified?
- A. They worked according to the specifications right along.
- Q. Please read my question to the witness, Mr. Reporter, and I will call for an additional answer.

(The Reporter reads the last question.)

- A. No, sir.
- Q. In the progress of the work done under the specifications, was there ever uncovered any work which was found necessary to do?

 A. No, sir.
- Q. Besides the work done under the specifications as testified to [1674—1585] by you, was there any other work done on the "Hilonian" at this time?
 - A. Yes, sir.
 - Q. Can you state generally what it was?

- A. There were several minor contracts entered into.
- Q. Do you refer to the minor contracts attached to the libel in this case?

Mr. FRANK.—There are no minor contracts attached to the libel; there are nothing but bills there.

Mr. McCLANAHAN.—Q. You refer to the minor contracts as the work done under the bills attached to the libel?

- A. This is a contract.
- Q. You refer to what?
- A. The remetalling of the five spring bearings. This is Schedule 4.
 - Q. That was a minor contract?
 - A. Yes, sir; these are minor contracts.
 - Q. Please read them off into the record.
 - A. "Grind off I. P. piston rods."
- Q. Excuse me; before we leave the remetalling of the five spring bearings, which you call a minor contract, I will ask you who it was that made that contract? A. Mr. Gray.
 - Q. With whom? A. With myself.
 - Q. At an agreed price?
- A. \$66 for each spring bearing. "Grind off I. P. Piston rod."
 - Q. How much was the agreed price for that?
 - A. \$50.
 - Q. Who agreed to that?
- A. Mr. Putzar and Mr. Williamson made that price.
 - Q. Did you have anything to do with it?

- A. No, sir, I did not know it until I saw the piston rod in the lathe.
- Q. Did Mr. Putzar have any authority to make that contract? A. No, sir.
- Q. What about the remetalling of the horseshoes in thrust [1675—1586] on one side only, as called for by Schedule 4? Do you know anything about that?
 - A. I don't know anything about that price.
 - Q. By "that price" you refer to what?
 - A. \$146.88.
 - Q. What do you know about the item itself?
- A. I know we agreed to pay for the metal which would fill one side of each shoe; "plane to size groove for oil and fit to collars." That comes under No. 9 of the original specifications.
 - Q. Proceed.
- A. "Supply and fit in place 5—3%" check floor plates." The agreed price on that was \$10 per plate.
 - Q. Who made that agreement?
- A. It was made between Mr. Putzar and Mr. Williamson without my knowledge.
- Q. How did you know that they had agreed on that?
- A. Mr. Williamson told me afterwards when the plates were going down.
 - Q. When the plates were going down where?
 - A. Down into the engine-room.
 - Q. What were those plates used for?
 - A. To replace broken plates in the engine-room.

- Q. Broken when the vessel was sent over to the shop first?
 - A. Two of them were broken, or three.
 - Q. What about the other two?
- A. Then there was one very thin one that Mr. Putzar condemned; the fifth one I don't know anything about.
 - Q. Proceed.
 - A. "New elbow in donkey boiler stack, \$40."
 - Q. What do you know about that contract?
- A. That was made between Mr. Putzar, Mr. Williamson and Mr. Taylor, and I subsequently sanctioned that.
 - Q. Now, turn to Schedule 5.
- A. "Repairs to ladders, floor plates and gratings in engine-room, \$190."
 - Q. What do you know about that?
- A. That arrangement was made [1676—1587] by Mr. Putzar and Mr. Williamson.

Mr. FRANK.—I want to know, Mr. McClanahan, why you, who are so careful not to get so much record here, are going into that detail when you have admitted the correctness of the bill?

Mr. McCLANAHAN.—I want to show, Mr. Frank, clearly all the work that was done on the ship and the conditions under which it was done. In your evidence you seem to be unable to think that a possibility, and that is my way of doing it.

A. (Contg.) About these ladders and floor plates, Mr. Putzar and Mr. Williamson had agreed on a certain price for that work before I came down to

the ship. I had been up to the shop for something or other. When Mr. Williamson told me about it. I objected very strenuously to that. I did not consider the work by any means was at all necessary. After a good deal of discussion with Mr. Williamson, we reduced the price to \$190 from the original agreement.

Q. Turn to the next schedule, Schedule 6.

A. "Renewed 35 rivets in connection. Caulk 70" of seam. Renew one tube in main boiler \$140." That was a contract entered into by Mr. Williamson, Mr. Hurley and myself.

Q. Proceed. The next is Schedule 7.

A. Schedule 7. "Make and instal 1 brake rig, \$140." That contract was entered into by Mr. Williamson, Mr. Putzar and myself.

Q. Proceed.

A. Schedule 8. "Cast and finish 4 new bearing boxes for main journals."

Q. Give the price of it.

A. \$1350. That was a contract between Mr. Gray and Captain Matson.

Q. Proceed.

A. Schedule 9. "Make new smokestack 8' by 46'. Remove old stack and instal new one. Enlarge casing below umbrella. Make [1677—1588] new top for breeching and 2 turnbuckle hangers," total, \$1140.

Q. What do you know about that schedule?

A. The smokestack was a contract between Captain Matson and Mr. Gray, made in the presence of

(Testimony of Carl E. Klitgaard.) Captain Saunders and myself.

- Q. When was that made, do you know?
- A. That was made the day before Captain Matson went east, I think whatever day that was; one day before she went on the drydock.
 - Q. What was the agreed price? A. \$900.
- Q. Do you remember the conversation, or any part of it that led to the making of that contract?
- A. Yes, sir. I reported to Captain Matson that the old smokestack was badly eaten away at its base, and for some distance up the seams were gone. Captain Matson asked Gray how much he wanted to take out the stack and put in a new one. Mr. Gray said, after a little figuring, "\$900." Captain Matson said "All right, go ahead, and put it in." That is about as far as I remember. Then Captain Matson asked him whether it would delay the vessel any beyond the 25 days, to which Mr. Gray said no.
- Q. What do you know about the item in Schedule 9, charged for at \$60?
- A. I will tell you. When they took the stack out we found the stack badly burned around where the casing was, and came to the conclusion it was because the casing was not large enough; there was not room enough around the umbrella; then Mr. Putzar and Mr. Christy entered into some form of an agreement to renew this casing around the umbrella. While they were still discussing it I came down and objected to it very strenuously on the strength that it belonged to the smokestack contract; we discussed the matter for quite a little while; finally Mr. Christy

got angry and he said, "All right, how much is it worth?" I said, "We will give you \$60," which was about half of what had been suggested. [1678—1589]

- Q. You say you contended that that belonged to the smokestack contract? A. Most assuredly.
 - Q. And you finally agreed to allow \$60?
 - A. Yes, sir.
- Q. Why, if it belonged to the smokestack contract?
- A. Captain Matson was east and it was near the completion of the vessel. I figured that it was worth more than \$60 to the Matson Navigation Company to have the work proceed as rapidly as possible; consequently, rather than dispute the matter I allowed them \$60. Captain Saunders was not to be had. He was loading the "Lurline" at that time.
- Q. What is your opinion now with reference to that particular item as to whether it belongs to the smokestack contract as originally entered into or not?

Mr. FRANK.—That is immaterial now. They have placed their own construction on it by the other contract that they have made.

A. Certainly, it was.

Mr. McCLANAHAN.—Q. Certainly, it was what?

- A. Part of the smokestack contract.
- Q. What have you got to say to the next item of \$180?
- A. "Made new top for breeching and made 2 new turnbuckle hangers." I am of the opinion that that

(Testimony of Carl E. Klitgaard.) would apply to the smokestack contract too.

- Q. Tell me about the contract, all you know.
- A. I don't remember much about that contract.
- Q. Who made it?
- A. Mr. Putzar made it with Mr. Williamson and Mr. Hurley.
 - Q. Turn to Schedule 10.
- A. "Renew 2 bottom tube sheets in forced draughts. Renew 2 back heads, 2 division head and 4 tube in smoke box \$725." That was a contract entered into between Mr. Gray, [1679—1590] Captain Saunders and myself.
- Q. When was that contract entered into, the last one that covered Schedule 10?
- A. If I remember right, it was entered into on the ship.
 - Q. When—at what time?
 - A. While she was laying over there.
- Q. Besides these minor contracts of which you have just testified, do you know of any other contracts between the United Engineering Works and the Matson Navigation Company that were being fulfilled at the time of the work in question?
- A. Yes, sir; the retubing of the donkey boilers and the installation of an independent circulating pump.
- Q. Was there any work being done on the Howden force draught system? A. Yes, sir.
 - Q. Was that a contract? A. Yes, sir.
 - Q. A prior contract? A. Yes, sir.
- Q. State whether or no these three latter contracts, one on the circulating pump, one on the don-

key boiler, and the Howden force draught system, were made at the time the "Hilonian" was at the yards of the United Engineering Works or prior.

- A. They were made long prior to that. The donkey boiler contract was let the year preceding, in the fall of the year.
- Q. Aside from the work which you have thus far enumerated, was there any other work done on the "Hilonian" at this time?
 - A. Some minor jobs, yes.
- Q. Do you remember any work being done on the tank-top?
 - A. Yes, sir. No. 4 port tank-top.
- Q. Were you present at a discussion in regard to that work when Captain Matson was on the ship?
 - A. Yes, sir.
- Q. What is your understanding of the discussion? State who was present at the time. [1680—1591]
- A. Mr. Gray, Captain Matson, and Captain Saunders, and Mr. Tenny, I think, from Honolulu, and Captain Johnston was present.
- Q. At the time of this conversation do you know if the United Engineering Works had made a bid on that tank-top job? A. Yes, sir.
- Q. I show you "Respondent Matson Exhibit No. 1" and ask you if you recognize that paper (handing). A. Yes, sir.
 - Q. What is it?
- A. That is a bid from the United Engineering Works.
 - Q. For what?

- A. For the renewal of the No. 4 tank-tops.
- Q. Do you know whether that bid was accepted or not? A. No, sir, it was not accepted.
 - Q. What was the conversation?
- A. Captain Matson thought it was too much money.
 - Q. Proceed; what was the understanding?
- A. The No. 4 tank-tops, something had to be done to them, so Captain Matson told Gray that he would not accept his bid, but to go ahead with the work and have the time kept distinctly separate from all other work being done on the ship. Gray promised him that it would not under any consideration go over \$1200. [In pencil:] \$1250.
- Q. Do you know, Mr. Klitgaard, the work that was done on No. 4 tank-tops? A. Yes, sir.
- Q. Will you please examine that bid and state whether or no the work called for in that bid was done on the No. 4 tank-top?
 - A. Not entirely as it is stated here; no.
- Q. During the repairs to the "Hilonian" was anything done to the No. 4 tank-top on the starboard side?

 A. No, sir.
- Q. During the repairs state what was done to the tank-top on the port side?
- A. With the exception of a very small plate where the after bulkhead and a plate at the forward bulkhead of the port side, all the tank-tops were renewed; the marginal plate [1681—1592] was not renewed, nor was the plate in the shaft alley itself; all of which from the center line, belongs to No. 4 tank-top of the port side.

- Q. The center line of what?
- A. The center line of the ship.
- Q. I show you "Kinsman Exhibit No. 1" and ask you if that is a fair representation of No. 4 tanktop. (Handing.)
 - A. Yes, sir; that gives a pretty good idea of it.
- Q. What part of the No. 4 tank-top on the port side as shown by the diagram was renewed?
 - A. The blank part; the part with the "F" in it.
- Q. Mr. Klitgaard, I hand you "Kinsman's Exhibit No. 2," which is represented by that witness to be a segregation of schedule 1 attached to the libel, which purports to be some of the work done on the "Hilonian," and ask you if you will please examine that carefully and see if you can answer to each of the 140 items found on the exhibit, taking them one at a time, as to whether or not the work was performed, beginning with No. 1—performed as stated in the list that you have.
 - A. No. 1 should be "partially renewed."
 - Q. Make all your comments on No. 1.
 - Mr. FRANK.—Q. What is partially renewed?
 - A. No. 4 tank-tops on the port side.

Mr. McCLANAHAN.—Q. I think I can shorten this examination by asking you specifically in regard to the various numbers. You say No. 1 is correct, but it should be there was a partial renewal of No. 4 tank-tops on the port side? A. Yes, sir.

Q. I call your attention to No. 9 and ask you if you have any comment to make on it. [1682—1593]

Mr. FRANK.—How about the intervening ones?

Are you admitting them—between 1 and 9?

Mr. McCLANAHAN.—You can make your own inference.

Mr. FRANK.—I guess I will.

A. Yes, sir. It says, "Made and fitted 2 sets iron guards"; as far as I remember, the iron guards were merely repaired and refitted.

Mr. McCLANAHAN.—Q. I call your attention to item 24 and ask you the same question.

A. I know there were no bottom blow line hangers on there.

Q. On where? A. On the ship.

Q. Were there at the time of the repair work being done over there in August and September, 1909?

A. No, sir.

Q. I will ask you if that item is or is not a part of any of the minor contracts which you have testified to.

A. Yes, sir; it is a part of the smokestack contract.

Q. I call your attention to item 27 and ask you the same question.

A. Yes, sir; that is a part of the smokestack contract.

Q. I call your attention to item 29 and ask you the same question.

A. Yes, sir; that certainly is, too.

Q. I call your attention to item 41 and ask you if you have any comment to make on that item.

A. Yes, sir; those rollers were never raised.

Q. I call your attention to item 23 and ask you the

(Testimony of Carl E. Klitgaard.) same question.

- A. All the fitting was done by the ship's crew.
- Q. The "Hilonian's" crew? A. Yes, sir.
- Q. I call your attention to item 54 and ask you the same question.
 - A. Four pipes to that manifold.
- Q. I am referring to 54, not 58. A. 54. [1683—1594]
 - Q. Proceed; you know more about it than I do.
- A. Three of those pipes were of lead, which work was done by the Smith Iron Works. [In pencil:] Coppersmith.
- Q. I call your attention to item 58 and ask you the same question.
- A. That is part of assembling under the original specifications; that is part of the assembling. That was done all right. 58. "All copper pipes connected."
- Q. What do you mean by assembling under the original specifications?
 - A. To put the ship in seaworthy condition again.
- Q. I call your attention to item 59 and ask you if that work belongs to any of the schedules of the libel covering the minor contracts.
- A. There were three fittings supplied, that this probably refers to; it would be an extra.
 - Q. What were those fittings?
 - A. A nipple, a sleeve and a union.
- Q. And if that item 59 refers to those three items it is an extra? A. It is an extra.
 - Q. I call your attention to item 62 and ask you

(Testimony of Carl E. Klitgaard.) whether or no that work belongs to any part of the original specifications.

- A. Yes, sir; the removal of the bilge pump belongs to the specifications, the item dealing with the renewal of joints under the air pump.
 - Q. What items of the specifications is that?
 - A. Item 1.
- Q. Have you any other comment to make on that item 62? A. No, sir; I think that is all.
- Q. I call your attention to item 70 and ask you whether or no that items belong to any part of the original specifications?
- A. Yes, sir; that belongs to No. 9. The thrust shaft coupling was not turned down, though.
- Q. I call your attention to 71 and ask you the same question.
 - A. Part of that belongs to No. 9. [1684—1595]
 - Q. What part? A. Bearing trued up.
 - Q. What does the other belong to?
- A. The shaft turned down at each end of the thrust collars. That is an extra.
- Q. I will call your attention to item No. 74 and ask you the same question.
- A. The work done on this piece of shafting was necessitated to bring the shaft in proper alignment, and consequently comes under 9 in the specifications. Incidentally that shaft was not turned down, but simply faced off.
 - Q. The forward coupling was not turned down?
 - A. No, sir.
 - Q. Simply faced off? A. Yes, sir.

- Q. I call your attention to item No. 75 and ask you the same question.
- A. That belongs to No. 9 of the original specifications.
- Q. I call your attention to No. 76 and ask you the same question.
 - A. That also belongs to No. 9.
- Q. I call your attention to No. 77 and ask you the same question. A. That also belongs to No. 9.
- Q. I call your attention to No. 78 and ask you the same question.
- A. I don't think the water service was reconstructed for the thrust.
 - Q. If it had been, would you have known it?
 - A. I would.
 - Q. Was anything done to the water service?
 - A. It was replaced.
 - Q. What would that come under?
 - A. No. 9 of the specifications.
 - Q. What part of No. 9? A. Reassembling.
- Q. I call your attention to item No. 81 and ask you the same question.
- A. That is Schedule 4, is it not? That is the one that is charged in Schedule 4.
- Q. By Schedule 4, you mean Schedule 4 of the libel?
- A. Of the libel, yes; it either belongs to that, or else it belongs to No. 9 of the specifications; that is the one (pointing).
- Q. I call your attention to item 82 and ask you the same question. [1685—1596]

- A. Part of that belongs to No. 9, and part is an extra.
 - Q. What is the extra? A. Handholes enlarged.
- Q. I call your attention to item 83 and ask you the same question.
 - A. That is No. 9 of the specifications.
- Q. I call your attention to item 89 and ask you the same question.
 - A. I don't know what a "lug thrust" is.
- Q. Assume that that means lengthening thrust spare L. P. Valve stem.
- A. That would come under No. 2 of the specifications as compensation work.
- Q. I call your attention to item 90 and ask you the same question.
- A. That comes under the same heading, No. 2 of the specifications.
- Q. I call your attention to No. 91 and ask you the same question.
- A. If those bolts were ever made, that belongs to No. 2 of the specifications.
 - Q. Do you question whether they were ever made?
 - A. Yes, sir.
 - Q. What is your ground for questioning that?
- A. The bolts that were in there originally were all right; the bolts that are in there now have got English thread on them.
 - Q. What has that got to do with it?
- A. If they made new bolts, they would have put American standard thread on.
 - Q. Were the bolts originally English or American

(Testimony of Carl E. Klitgaard.) standard threads?

- A. They were English originally, and they are yet.
- Q. Do you know what kind of threads the United Engineering Works makes for their bolts?
 - A. Yes, sir; standard American threads.
- Q. With that comment on item No. 91, can you answer my former question?
- A. It belongs to No. 2 of the specifications, compensation work.
- Q. I call your attention to item No. 94 and ask you the same question. [1686—1597]
 - A. That belongs to No. 6 of the specifications.
- Q. I call your attention to No. 96 and ask you the same question. A. That comes under No. 2.
 - Q. Of the original specifications?
 - A. Yes, sir.
- Q. I call your attention to item No. 103 and ask you if you have any comment to make on that item.
- A. I will tell you; that turning engine was all right when we went over there, and it was used exclusively by the United Engineering Works in overhauling the vessel; it was broken by them. I think it was broken by Nelson; this work necessitated the repairing of work that they broke.
- Q. I call your attention to item 104 and ask you if that item belongs to any of the items of the original specifications.
- A. It belongs to No. 9. All the dowels and setscrews were in there when she came over there.
- Q. I call your attention to item 106 and ask you the same question.

- A. Will you explain to me what a cofferdrain is?
- Q. Assume that the word "coffer" there should be "copper."
- A. Then that should come under general assembling in the original specifications.
- Q. I call your attention to item 108 and ask you the same question.
- A. All that reconnecting water service and drains comes under the assembling. The brass pipe in the water service should be allowed as an extra.
- Q. The brass pipe in the water service should be allowed as an extra? A. Yes, sir.
 - Q. What was the pipe before this work was done?
 - A. Galvanized iron. [1687—1598]
- Q. Should there be an allowance for the full value of the brass pipe?
- A. No, sir; just the difference between the price of the brass pipe and the price of the iron pipe.
 - Q. Do you know who put that pipe up?
 - A. Who put it up?
 - Q. Yes, the brass pipe. A. I do not remember.
- Q. I call your attention to item 120 and ask you if you have any comment to make on that item.
- A. Yes, sir; that item there belongs to a previous contract for the thrust, the reconstruction of the thrust, that was made a year or a year and a half previous to this.
 - Q. Made by whom?
 - A. Made by Gray with Captain Matson.
- Q. Do you refer to a contract which you have not mentioned in your testimony heretofore?

- A. Yes, sir; this was a contract that was completed outside of this, and a trolley line that was to go overhead.
- Q. I call your attention to 123A and ask you what comment you have got to make on that item.
- A. I don't know anything about that item. I do not know what the circumstances are connected with it.
 - Q. Do you know that the work was done?
 - A. Yes, sir, the work was done.
 - Q. Does it belong to any item of the specifications?
 - A. It might probably belong to No. 9.
 - Q. But you do not know? A. I do not know.
- Q. And if it did not belong to No. 9, would it be an extra? A. Yes, sir.

(An adjournment was here taken until to-morrow, Friday, November 3d, 1911, at 10 A. M.) [1688—1599]

Friday, November 3d, 1911.

CARL E. KLITGAARD, direct examination resumed:

Mr. McCLANAHAN.—Q. Mr. Klitgaard, I call your attention to item No. 125 of "Respondent Kinsman Exhibit No. 2," and ask you if you have any comment to make on that item.

- A. That belongs to the general assembling under the specifications.
- Q. I call your attention to item 128 of that exhibit, and ask you to what number of the original specifications that item belongs.
 - A. It belongs to No. 1 of the original specifications.

Q. I call your attention to item 129 of "Kinsman Exhibit" and ask you the same question.

A. That is recompense work for item No. 2 of the original specifications.

Q. I call your attention to item No. 130 of the exhibit and ask you the same question.

A. That belongs to the same item.

Q. No. 2 of the original specifications?

A. Yes, sir.

Q. I call your attention to item 131, and ask you the same question.

A. That belongs to No. 4 of the original specifications.

Q. However, under No. 4 you have testified that there was to be a credit allowance for Challenge metal, have you not? A. Yes, sir.

Q. I call your attention to items 132 and 133, and ask you the same question.

A. Those both belong to the recompense work under item No. 5 of the original specifications.

Q. And there was an allowance, as you have testified, of brass and Challenge metal as an extra, was there not? [1639—1600] A. Yes, sir.

Q. I call your attention to item 134, and ask you the same question.

A. That belongs to item No. 6 of the original specifications.

Q. I call your attention to item 135, and ask you the same question.

A. That is recompense work for item 7 of the original specifications.

- Q. I call your attention to item 136, and ask you the same question.
 - A. That is No. 8 of the original specifications.
- Q. I call your attention to item 137, and ask you the same question.
 - A. That is item No. 9 of the original specifications.
- Q. I call your attention to items 138 and 139 of this exhibit, and ask you the same question.
- A. That is item No. 10 of the original specifications.
 - Q. Both of those numbers? A. Yes, sir.
- Q. I call your attention to item No. 140 of the exhibit, and ask you the same question.
 - A. That belongs to the circulating-pump contract.
- Q. I call your attention to item 127 of this exhibit, and ask you if you know anything about the drawings and sketches which that item calls for.
 - A. No, sir, I do not know anything about them.
 - Q. Did you ever see them on the ship?
 - A. No, sir.
- Q. Now, Mr. Klitgaard, I refer you to item 32 of this exhibit. Do you know that that work called for under that item was done? A. Yes, sir.
- Q. What was the value of that work? Have you estimated it? A. \$14.00. [1690—1601]
- Q. Mr. Klitgaard, can you state whether or no there was ever any work done in the shop of the United Engineering Works at the time the "Hilonian" was there undergoing these repairs, to any piston-rods of the ship except that done under Schedule 4 of the libel? A. That was all.

- Q. The questions that I am about now to ask you, Mr. Klitgaard, all of them refer to the time the "Hilonian" was at the yards of the United Engineering Works undergoing these repairs. Do you know whether at the date of August 23d, 1909, any of the bearings of the "Hilonian" were out of the ship?
 - A. No, sir.
 - Q. You don't know, or what?
- A. I know there were none out of the ship. Any of the main bearings, did you say? Read the question to the witness, Mr. Reporter.

(The Reporter reads the question.)

- A. No, sir, there were none out of the ship.
- Q. Do you know whether there was any work performed by the United Engineering Works on tube-heads other than that performed under Schedule 10 of the libel? A. That is all.
- Q. Do you know whether there was any work done on the brake of the "Hilonian" other than that performed under Schedule 7 of the libel?
 - A. No, sir, no other work except that.
- Q. Do you know whether there was any lagging work done on any cylinder in the shop of the United Engineering Works except that done on the small balance-cylinder, which was the compensation work as you have testified for No. 2 of the original specifications?
- A. No, sir, that was the only lagging done to cylinders in the shop.
- Q. Do you know whether the "Hilonian's" reverse-shaft was ever in the shop of the United En-

(Testimony of Carl E. Klitgaard.) gineerings Works? [1691—1602]

- A. I know it never was.
- Q. Do you know whether any valves for feedpumps were ever furnished to the "Hilonian" by the United?
 - A. No, sir, I don't know that any were furnished.
- Q. What do you mean by that—that they might have been furnished and you not know it?
- A. No, sir, they could not have been. I meant to say that I know they were none furnished.
- Q. Do you know whether any work was ever done on a cylinder-head belonging to the machinery of the "Hilonian" except that done on the small balance-cylinder referred to?
- A. No, sir, there was no work done on the cylinder-heads in the shop except the one referred to.
- Q. Do you know whether any of the "Hilonian's" bed-plates were ever in the shop of the United?
 - A. I know they were not there.
- Q. Do you know whether any of the "Hilonian's" bed-plates for engine was ever in the shop of the United?

 A. I know it was not.
- Q. Do you know whether any work was ever done in the shop on the "Hilonian's" air-chambers?
- A. There was no work done on the "Hilonian's" air-chamber in the shop, for the "Hilonian." They were thrown into the scrap as far as I remember.
- Q. That answer requires a further explanation; will you make it? What do you mean by "thrown into the scrap"?
 - A. I mean the only air-chamber that was taken

(Testimony of Carl E. Klitgaard.) from the ship was permanently discarded.

- Q. Permanently discarded by whom?
- A. By the ship. They had no further use for them.
- Q. Do you know whether those air-chambers were ever brought [1692—1603] back on to the ship again? A. I know they were not brought back.
- Q. On an exhibit in this case called "Adamson Exhibit 7," under date of September 21st, and under No. 5398, there is a charge for "extension and brasstags for main and bilge injections." Can you state what that work belongs to, referring to the specifications and the contracts which you have mentioned?
- A. Why, that belongs to the circulating-pump contract.
- Q. Do you know what any work of babbitting thrust-collars would belong to?

 A. Schedule 4.
 - Q. Of the libel? A. Of the libel.
- Q. Do you know what any work of "babbitting thrust-collars" would belong to? A. Schedule 4.
 - Q. Of the libel? A. Of the libel.
- Q. Do you know what any work on the thrust-collars would belong to?
 - A. With the exception of the babbitting?
- Q. Don't except the babbitting, any work on the thrust-collars would belong to.
- A. It would belong to Schedule 4 of the libel, or No. 9 of the original specifications.
- Q. Do you know whether any work was ever done by the United Engineering Works on any oil-pump of the "Hilonian" in the shop?

- A. There was no work done on the oil-pump.
- Q. Do you know whether any work was ever done in the fly-wheel in the shop of the United Engineering Works except under the circulating-pump contract?
- A. No, sir; that is, all the work done to the flywheel belonged to the circulating-pump contract.
- Q. Do you know whether any cylinder liner work was ever done by the United Engineering Works on this job?

 A. No, sir. [1693—1604]
 - Q. It was not?
 - A. No, sir; there was none done.
- Q. Is there such a thing in the ship as an aircylinder, Mr. Klitgaard?
 - A. No, sir; the "Hilonian" has no air-cylinders.
- Q. Do you know whether anything was ever done by the United to the cover for the slide-valve?
 - A. Not in the shop.
 - Q. That is, no work was done on that in the shop?
 - A. No, sir.
- Q. Where would work done on polishing fly-wheels circulating-engine belong to?
 - A. The circulating-pump contract.
- Q. Do you know whether any shop work on the main bearing or main bearings was ever required under the original specifications? A. No, sir.
- Q. Do you know what work on the main bearings of the "Hilonian" would come under—what schedule of the libel? A. Schedule 8 of the libel.
- Q. Do you know whether work on the main bearings would come under any other schedule than Schedule 8?

- A. No. 9 of the original specifications.
- Q. Would that be shop or ship work?
- A. That would be ship work, no shop work.
- Q. Do you know whether any shop work was done on the spring bearings except that done under the original specifications?
 - A. Yes, sir; there was some work done.
 - Q. What was it?
 - A. It is covered in Schedule 4 of the libel.
 - Q. Shop work? A. Shop work; yes.
- Q. My question was, was any shop work done on the spring bearings under the original specifications?
 - A. No, sir.
- Q. Do you know whether any columns of the "Hilonian" were ever in the shop of the United?
 - A. I know there were never any up there.
- Q. Do you know whether any condenser from the "Hilonian" was [1694—1605] ever taken to the shop of the United?
- A. The condensers were never moved out of the ship.
- Q. Do you know whether any of the ship's taps were ever tempered in the shop of the United?
 - A. I know that there were none tempered.
- Q. Do you know whether any swivel work was called for under the original specifications?
 - A. No, sir; not called for.
- Q. Do you know what schedule of the libel "work on details for break" would come under?
 - A. Schedule 7.
 - Q. Do you know what schedule of the libel "work

(Testimony of Carl E. Klitgaard.) on alteration on bearing for main bearing' would

come under? A. Schedule 8.

- Q. Do you know whether anything that could be called trolley-rails were ever taken from the ship?
- A. No, sir; there were none removed from the vessel.
- Q. Do you know under what work would come "nozzle for C. I. R. pump"?
 - A. The circulating-pump contract.
- Q. Do you know when the "Hilonian," Mr. Klitgaard, went on the marine railway of the United Engineering Works?

 A. September 10th, 1909.
- Q. Could any work have been performed on the wheel of the "Hilonian" by machinists prior to the ship going on the marine railway. A. No, sir.
- Q. Could any work have been performed on the sea-valves of the "Hilonian" prior to the ship going on the marine railway?
 - A. Yes, sir; it could have been, but there was not.
- Q. Mr. Klitgaard, would it have been possible to have done work on the sea-valves of the "Hilonian," or on her wheel for 10 hours straight time on the 10th of September, 1909?
- A. No, sir. She did not go on the dock until one o'clock in the afternoon. [1695—1606]
- Q. Prior to the vessel going on the dock on the 10th of September, had you any knowledge of any repair work required to the rudder of the "Hilonian"?
 - A. No, sir.
- Q. Was any repair work found necessary after she went on the dock? A. Yes, sir.

- Q. What was it?
- A. The renewals of the gudgeons and pintles. We found them very badly worn.
 - Q. When was that repair work first discovered?
 - A. Shortly after the vessel was out of the water.
 - Q. What was done with reference to the matter?
- A. We gave orders to have the gudgeons and pintles renewed.
 - Q. By "we," who do you mean?
 - A. Captain Saunders and myself, and Mr. Putzar.
 - Q. Who did you give orders to?
- A. Directly to Mr. Williamson. I think he was the first man who was instructed on it. Later Mr. Christy was brought down in consultation.
 - Q. When was Mr. Williamson so instructed?
 - A. A couple of hours after she came on the dock.
- Q. Do you remember when Mr. Christy was spoken to about the matter?
 - A. No, sir; I think it was the following morning.
- Q. Do you know when work was commenced by the United on the gudgeons and pintles?
- A. The gudgeon and pintle work was commenced right away the next morning. The rudder was lifted the first thing the following morning.
- Q. Did you discover the need for these repairs before the rudder was lifted? A. Yes, sir.
- Q. Do you know whether that work was continuously performed after it was commenced on the morning of September 11th?
 - A. Yes, sir; they worked at it right along.
 - Q. Mr. Klitgaard, do you know how that work

(Testimony of Carl E. Klitgaard.) was performed; [1696—1607] how the boring was done, for instance?

- A. I don't just recollect the details of it.
- Q. You do not know the tools they used?
- A. No, sir.
- Q. Do you know whether there would have been any difficulty in keeping track of the time and labor and material done under the minor contracts that you have testified to as distinguished from the original specifications?
 - A. No, sir; there should not be any difficulty.
- Q. Would there be any difficulty in so keeping track of the time, labor and material done on the extra work that was performed by the United Engineering Works as distinguished from both the original specifications and the minor contracts?
 - A. No, sir.
- Q. Would there have been any difficulty in keeping track of the time and labor and material done on the circulating-pump contract as distinguished from the original specifications? A. No, sir.
 - Q. The minor contracts or the extra work?
 - A. No, sir.
- Q. With reference to the Howden forced draught work, would there have been any difficulty in keeping track of that as distinguished from the others?
 - A. No, sir.
 - Q. Or the donkey-boiler work? A. No, sir.
- Q. When the "Hilonian" first went to the yards of the United Engineering Works were you familiar with the condition of her machinery?

 A. Yes, sir.

- Q. What was the condition of the "Hilonian's" machinery at that time?
- A. Her machinery was pretty good; in pretty good shape.
- Q. Do you know whether the condition was such that immediate repair was required or not?
- A. No, sir; she could have gone six months more without any trouble. [1697—1608]
- Q. With reference to the circulating-pump work, the donkey-boiler work, and the Howden forced draught system work which you have testified to as having been done under contracts, was any work done on either of those pieces except that called for by the contract? A. Yes, sir.
 - Q. What was it?
- A. Two low water-cocks installed in the donkey-boiler.
 - Q. That you would consider an extra?
 - A. Yes, sir.
- Q. Is that all that was done except under the contracts?

 A. Yes, sir; I think that is all.
- Q. Mr. Klitgaard, after the completion of this work, I understand you severed your connection with the Matson Navigation Company? A. Yes, sir.
- Q. Did you make a report of the repairs that were done to the "Hilonian" at that time to the Matson Navigation Company? A. Yes, sir.
 - Q. Did you make that in writing? A. Yes, sir.
- Q. Did you give any copy of that report to anyone else?

 A. I gave one to Harry Gray.
 - Q. Who is Harry Gray?

- A. Secretary of the United Engineering Works.
- Q. When did you give him this copy?
- A. Shortly after I had handed mine to the Matson Company.
- Q. And when did you hand yours to the Matson Navigation Company?
 - A. Three or four days after the ship sailed.
 - Q. And when did the ship sail?
 - A. She sailed on the 25th of September, 1909.

Mr. McCLANAHAN.—Mr. Frank, I again suggest to you that if you will produce that copy, I will be glad to offer it in evidence. [1698—1609]

Mr. FRANK.—It will be produced in time.

Mr. McCLANAHAN.—Q. Mr. Klitgaard, calling your attention to the work shown by the first three pages of Schedule 1 of the libel, and the work shown by the first page of Schedule 3 of the libel, and the work shown by Schedules 4, 5, 6, 7, 8, 9 and 10 of the libel I will ask you if you have ever estimated the reasonable value of that work as of the date that it was performed in the year 1909. A. Yes, sir.

- Q. What was the estimate? A. \$23,156.
- Q. In making that estimate, how did you treat Schedules 4, 5, 6, 7, 8, 9 and 10?
- A. I took the prices agreed on in these schedules and contracts when they were made, and added them to what I found the other work to be worth.
 - Q. And the sum total you say was \$23,156?
 - A. Yes, sir.
- Q. In order to make this perfectly clear, I understand in your estimate of \$23,156, there is to be found

\$616.80, as the value of Schedule 4? A. No, sir.

Q. What is that?

A. This second item referring to the planing of the horseshoes, etc., I only allowed as agreed for the metal that went into those horseshoes.

- Q. How much was that? A. 300 lbs.
- Q. With that qualification you took the estimate found on Schedule 4 for the other items of work there? A. Yes, sir.
- Q. And for Schedule 5, you took the value there of \$190? A. Yes, sir.
- Q. And for Schedule 6, you took the value there of \$140? A. Yes, sir.
- Q. And for Schedule 7 you took the value there of \$140? A. Yes, sir.
- Q. And for Schedule 8 you took the value there of \$1,350? A. Yes, sir. [1699—1610]
 - Q. And for Schedule 9, what did you do?
 - A. I took it as it stands there, \$1,140.
- Q. And for Schedule 10, you took the value there of \$725? A. Yes, sir.
- Q. In estimating this work, Mr. Klitgaard, were you or were you not familiar with it as it had been done? A. Yes, sir, perfectly.

Mr. McCLANAHAN.—You can cross-examine.

Cross-examination.

Mr. FRANK.—Q. Of course, in making those estimates, Mr. Klitgaard, you estimated the work on the basis that you have just given your testimony?

A. Yes, sir.

Q. And the several things that you have testified

to as having been done, and not having been done, and in every detail as you have given your testimony here, that is the foundation of your estimate?

- A. My estimate was made from a copy of Schedule 1 of the libel and the attached schedules.
- Q. The estimate was made from a copy of Schedule 1 of the libel?

Mr. McCLANAHAN.—And the attached schedules?

A. Yes, sir.

Mr. FRANK.—Q. You have testified that in many respects Schedule 1 of the libel does not state the true condition of the work?

- A. I was requested by Messrs. McClanahan and Derby to figure on the work as set forth on those specifications in that bill, and I did so.
- Q. When did you make that estimate, Mr. Klitgaard? A. Last June.
 - Q. June, 1910? A. Yes, sir.
 - Q. Where at?
 - A. West Berkeley. [1700—1611]
 - Q. At West Berkeley? A. Yes, sir.
- Q. That was after you severed your connection with the vessel? A. Yes, sir.
- Q. Did you consult with anybody at all when you made that estimate? A. No, sir.
- Q. Did not talk with anybody about the details of it?
- A. Not except I might have discussed the matter with Mr. Gray. I don't recollect doing so.
 - Q. With whom? A. Mr. Gray.

- Q. By "Mr. Gray" do you mean Mr. Harry Gray?
- A. Mr. Harry Gray.
- Q. At the time you were making the estimate, did you tell Mr. Gray you were making such an estimate?
- A. No, sir; I told him afterwards that I had made an estimate.
- Q. What sort of discussion did you have with Mr. Harry Gray respecting the estimate that you are now testifying to?
- A. I did not have a discussion with him regarding the estimate. I probably discussed the work with him.
 - Q. You probably discussed the work with him?
 - A. Yes, sir.
 - Q. What do you mean by "probably"?
- A. I may or may not. I do not recollect having done so.
- Q. If you may or may not, why have you volunteered the statement just now, that you did?
- A. I did not intend to make a positive statement, Mr. Frank. In those days, I saw a good deal of Mr. Gray. We discussed matters of all kinds.
- Q. If you have doubts about it now, and you may or may not, what moved you to make the suggestion, when first asked if you discussed it with Mr. Gray?
- A. Because he is the only man that I probably would discuss it with. [1701—1612]
- Q. Because he is the only man you probably would discuss it with? A. Yes, sir.
 - Q. How would you come to discuss it with him?
 - A. Merely because he was the man who was after

(Testimony of Carl E. Klitgaard.) myself most interested in the work.

- Q. And you want us to understand that if you did discuss it with him, you did not give any intimation of the purpose of the discussion?
 - A. No, sir; I don't think I did.
- Q. You have not any idea where you discussed it with him? A. No, sir.
- Q. And you have not any idea when you discussed it with him?

 A. No, sir.
- Q. As a matter of fact, you never did discuss it with him? A. I tell you I may or may not.
- Q. You do not want to be understood as testifying that you ever did discuss it with Mr. Gray?
- A. I do not want to make a positive statement on the matter; no.
- Q. Outside of your possible discussion with Mr. Gray, you want us to understand that you never spoke about the subject to anybody, is that right?
 - A. Yes, sir; that is right.
 - Q. Did you ever speak to Mr. Diericx about it?
 - A. No, sir.
- Q. How did you come to make the estimate if you never spoke to Mr. Diericx about it?
 - A. I got a letter from Mr. McClanahan.
- Q. When you got that letter did you not come over to see about it?
- A. I had already been asked whether I would estimate it or not.
 - Q. Where is that letter now?
- A. I think I have it with me (producing). [1702—1613]

- Q. Did you call on Messrs. McClanahan and Derby respecting this matter when you got this letter?
- A. I don't remember whether I did or not, Mr. Frank.
 - Q. You do not remember whether you did or not?
 - A. No, sir.
- Q. Have you not any recollection on the subject at all?
- A. Not as to whether I called on him after receiving the letter or not; no.
- Q. Did you talk with him before you received the letter?
 - A. I had been asked whether I would estimate it.
 - Q. What was said to you?
 - A. I was asked whether I would estimate the bill.
 - Q. What was your reply?
- A. I demurred to about estimating it at first owing to my friendship for Mr. Harry Gray.
- Q. You seem to count a great deal on your friendship for Mr. Harry Gray in this examination. You have volunteered that once before.
- A. That was the reason I did not care to enter into the matter here, but it was put up to me as being my duty to the Matson Navigation Company. I consequently agreed to estimate the bill.
- Q. When you estimated the bill, did you have before these specifications in this case?
- A. I had this before, Mr. Frank. (The witness hands to the counsel a paper.)
 - Q. Those are the specifications that Mr. McClan-

ahan just passed to you? A. Yes, sir.

- Q. And that is what you mean by specifications, that is all the papers before you?
 - A. Yes, sir, and my notes.
 - Q. And your notes? A. Yes, sir.
- Q. Have you the details of that estimate? [1703—1614]
 - A. What do you mean by the details?
 - Q. That you made at that time?
 - A. I sent my estimate to Mr. McClanahan.
- Q. Where are the details from which the estimate is given?
- A. Most of them are destroyed I think, Mr. Frank.
 - Q. You have destroyed them? A. I think so.
- Q. What you said to Mr. McClanahan was just simply the conclusion?
 - A. Yes, sir, my findings.
 - Q. Why did you destroy the details?
- A. Because I did not think there was any necessity for keeping them.
- Q. What did you allow, Mr. Klitgaard, for renewing No. 4 tank-tops on port side and securing fore and aft and thwartship angle-irons under the same?
 - A. Do you mean how much did I allow?
 - Q. Yes, how much did you allow?
 - A. I cannot state positively now how much it was.
- Q. Have you any means of determining now how much it was? A. No, sir, not correctly.
 - Q. Not correctly? A. No, sir.
 - Q. Just take a sheet of paper and see how near

(Testimony of Carl E. Klitgaard.) you can come to it now, Mr. Klitgaard. (Handing a sheet of paper to the witness.)

- A. Well, I could not attempt that now.
- Q. Oh, yes, you could.
- A. I have not now in my recollection the number of angle-irons or the number of rivets, or the number of plates that were driven into that tank.
 - Q. You have not?
- Q. Without the weight of the various materials, it would be almost impossible to give anywhere near a true figure of what that work was worth.
- Q. Did you make that figure entirely from recollection at that [1704—1615] time?
- A. I had various notes and various note-books appertaining to the work.
- Q. You recognize the fact, Mr. Klitgaard, that during your direct examination you have testified regarding every detail that was asked you, promptly off the bat, as quick as the question was asked, without reference to any notes of any kind, with the exception of one or two weights of babbitt metal that you looked to your note-book for; is that not the fact? A. With the help of the specifications.
- Q. With the help of the specifications that have been before you? A. Yes, sir.
- Q. And every question that you have been asked you answered promptly, without any stopping to consider at all?
- Mr. McCLANAHAN.—I object to that statement as a misstatement of the situation. It is an attempt of counsel to paint a picture for the Court. It is not

fair, because Mr. Klitgaard did not do as Mr. Frank has said promptly answer every question.

Mr. FRANK.—Are you instructing the witness? Mr. McCLANAHAN.—I am making my objection to your statement.

Mr. FRANK.—It is not your statement. The witness can answer it. He knows as much about it as you do. The witness now he has got his instructions can make such statement as he thinks is true or as he desires. Just answer the question.

- A. I say the same as Mr. McClanahan, that I certainly hesitated at times.
 - Q. You never consulted anything?
 - A. Except the papers before me.
- Q. Except the specifications. When you say you hesitated, you did not hesitate very long, did you? [1705—1616]
 - A. Not very often; no.
- Q. Now, if you have such good recollection of the matter for the purpose of that examination which went into every detail, why is it you have not sufficient recollection of the detail to give me some of the figures that I have not asked you for?
- A. I will tell you, Mr. Frank, where I might easily remember what has been done, I would not remember just how many rivets or how many angle-irons, or how many strengthening bars or how many plates, the sizes of those plates or the weight of those plates; those are details that I could not possibly recollect.
- Q. And there is no means of getting them at the present time? A. Not that I know of.

Q. It is only because you had a recollection at that time of all of those small details that you were enabled to make a figure; is that right?

A. I think I made the statement that I had my notes—various notes.

Q. Where are the notes?

A. I also told you that most of them were destroyed.

Q. Most of them were destroyed? A. Yes, sir.

Q. It is only because you had those before you in the notes at that time that you were able to make any estimate at all; is that right?

A. Yes, sir. I made the estimate with the help of my notes.

Q. And without that, it would be impossible to duplicate the estimate, I understand you to say; is that right?

A. It is impossible for me to do it now; yes.

Q. Let us not misunderstand each other. You mean it is impossible for you to do it now or will be impossible for you to do it at any time hereafter?

A. No, sir. [1706—1617]

Q. When can you do it again?

A. If I was given the opportunity to remeasure those plates and see that work in detail I could give that estimate.

Q. If you had the opportunity to remeasure the work? A. Yes, sir.

Q. Has the steamer gone out? A. I think so.

Q. So it is beyond your power, then, at the present time, to get any data whatsoever to duplicate that estimate?

- A. I do not know of any way.
- Q. You do not know of any way whatsoever?
- A. Of getting the data.
- Q. Did you, as the work was being performed, keep a tab of the number of rivets, the size of the angle-irons and the details that you have spoken of?
 - A. Not in just the way you have put it in.
 - Q. In what way did you?
- A. I did not count every rivet, but I got from the foreman, Mr. Hurley, or Mr. Taylor, whichever it was, a note or memorandum as to how much material had been used.
- Q. A note or memorandum as to how much material had been used? A. Yes, sir.
- Q. When did you get that from Mr. Hurley or Mr. Taylor?
- A. I don't know. I asked them how much material was used in that.
 - Q. When? A. When the work was completed.
 - Q. When the work was completed?
 - A. Yes, sir.
 - Q. How long after the work was completed?
 - A. I don't know.
 - Q. You do not know? A. No, sir.
 - Q. Cannot you give us any idea?
- A. No, sir. You must remember [1707—1618] that the note he gave me or the memorandum I got from him was more or less approximated.
- Q. Are you sure that you got a memorandum from Mr. Hurley or Mr. Taylor?
 - A. Not a written one, probably.

- Q. Not a written one? A. No, sir.
- Q. What kind of one did you get?
- A. For instance, I asked them how much material had gone into that, or what had been done to that tank, and they informed me, and I myself had seen the number of angle-irons and cross-bars and strengthening-bars that had gone into this.
- Q. When did you ask them this and get the information? A. About every day I asked them.
 - Q. During the time the work was going on?
 - A. Yes, sir.
- Q. And what did you do with the information that you received?

 A. Jotted it down in my notes.
- Q. And is that some of the notes that you have destroyed? A. Yes, sir.
- Q. You do remember when you asked these men for that detail?
 - A. I don't remember the exact date.
- Q. You mean to say it was during the progress of the work?
- A. And when the work was completed I asked them.
- Q. You remember the exact dates of a great many things that have been asked you on direct examination. I shall expect you to remember some dates now on the cross-examination, Mr. Klitgaard.
- A. I cannot do any more than remember what I can remember, Mr. Frank.
- Q. I see. Then you only kept track of that work yourself in a general way? A. Yes, sir.
 - Q. You did not keep a detailed track of it while

(Testimony of Carl E. Klitgaard.) it was being performed?

- A. No, sir, just a general track. [1708—1619]
- Q. Now, with the next item "Cut three holes in bottom of ship to facilitate the cleaning of No. 4 tank." Can you give us any idea of how you figured that?
- A. I will tell you, it was a very small job, and at the time when I made the estimate I had in mind fairly clearly about the length of time that it took to do that job.
 - Q. To do that particular job? A. Yes, sir.
 - Q. How did you have it in mind?
- A. Because the vessel was on the dock and there was some discussion brought up as regards whether we would cut that size hole or not, or whether we would just run a plug-hole, a small inch and a half hole and steam the tank out, which we tried, but owing to the thickness of the fuel sediment that was on the bottom of the tank we found it did not come out fast enough so we cut this 3 or 4 inch hole in the bottom of the ship.
- Q. Now that you have related it, have you not just as good a recollection of it now as you had then?
 - A. Well, no, I cannot say that I have.
 - Q. You have not?
 - A. I can remember the instance very well.
- Q. Was there much delay due to the discussion over cutting that hole?
- A. No, sir; we started to cut holes right away as soon as she came on the dock.
 - Q. You say there was some discussion about the

(Testimony of Carl E. Klitgaard.) manner in which you should do it?

A. There was a discussion as to the size of the hole, whether we should cut an inch and a half hole for a plug or cut up this larger hole.

Q. How long did you discuss it?

A. We cut the smaller hole first; when we found it did not work we cut the larger hole. The whole business was probably [1709—1620] done inside of 3 or 4 hours.

Q. You say probably done inside of 3 or 4 hours. Have you any recollection of whether it was 3 or 4 hours now?

A. I have a fairly good recollection that it was done in the forenoon.

Q. A fairly good recollection?

A. Yes, sir. I would not swear to it.

Q. You would not swear to it?

A. Within any certain number of hours.

Q. You would not swear to how many men worked on it either, would you? A. No, sir, I would not.

Q. Can you give us now any figure on 3 "Patches riveted over holes. 2-2½" sounding pipes supplied and fitted in #3 and #4 tanks"?

A. No, sir. I would not care to give a figure on it now.

Q. Why could you not give a figure on it now?

A. Because it is two years since that work was done. I could not fairly make figures now from memory, though I remember these instances quite well. I don't remember just how many men worked, or how long they worked on those jobs.

- Q. As a matter of fact, Mr. Klitgaard, with reference to all of this work you were just giving it a sort of general supervision, were you not?
 - A. During the progress of the work, do you mean?
 - Q. Yes.
 - A. Yes, sir, I was superintending the work.
 - Q. Giving it a general supervision?
 - A. Yes, sir.
- Q. Seeing that the work was performed in the manner in which you desired it performed?
 - A. Yes, sir.
 - Q. That was the extent of your work upon it?
- A. Yes, sir, that was about the extent of it. [1710 —1621]
 - Q. That was all you were doing in respect to it?
 - A. Yes, sir.
 - Q. And Mr. Putzar was keeping the time?
 - A. Yes, sir.
 - Q. You had nothing to do with the time at all?
 - A. Not officially; no.
 - Q. Well, unofficially either?
- A. No, sir, merely to the extent that I would notice probably how long a man was on a certain job.
- Q. But it was no part of your business, and outside of your noticing it, you paid no further attention to it? A. No, sir.
- Q. Could you give us any figure or any estimate now on No. 4: "Secured angle-iron bars in shaft-alley for new flooring support"?
- A. If you could give me the size and weight of that angle-iron I could give you a figure on it.

- Q. You cannot do it now unless you know just those details?
 - A. I could not recollect now, Mr. Frank.
- Q. Those angle-iron bars are underneath the flooring, are they not? A. Yes, sir.
- Q. Could you give us any idea or any figure upon No. 5: "Supplied and fitted 4 new sheet-iron guards for shaft alley couplings"?
- A. I cannot give you a figure except what is based on my memory as to the extent of that work.
 - Q. That is all? A. Yes, sir.
- Q. Then all of your estimate that you made was simply based at that time upon your then recollection of the extent of the work; is that it?
 - A. Assisted by my notes.
- Q. Your notes had nothing in them except showing the extent of the work; is that right?
 - A. That is it.
 - Q. That is all your notes consisted of?
- A. I had various weights in it and sizes and materials.
 - Q. And that is all?
 - A. That is all. [1711—1622]

Mr. FRANK.—I am going to offer this letter of Mr. McClanahan's with the specification attached, which the witness has testified to as an exhibit, and I ask that that paper be marked "Libelant's Klitgaard Exhibit No. 1.")

(The document is marked "Libelant's Klitgaard Exhibit No. 1.")

Q. Now, I was not able to follow you on your direct

examination as closely as I should like with respect to those figures, Mr. Klitgaard, and I wish you would take a piece of paper and put down the figures which you say you allowed as contract work.

- A. Just put down the figures?
- Q. Just make a memorandum there what they are for, so that we can follow it.

Mr. McCLANAHAN.—Mr. Frank, that will take a long time, to copy those pages over again and put down the figures. Why not let him put the figures down?

Mr. FRANK.—No. I can't help it. You have taken a long time, all the time you have found necessary for your examination.

Mr. McCLANAHAN.—I do not think you ought to kill time that way.

Mr. FRANK.—I am not trying to kill time. I am trying the best I can.

- Q. Add that up. A. I think it is all there.
- Q. I notice you have left out \$146.88, out of Exhibit 4; is that right?
- A. That is down a little further, Mr. Frank. I gave them \$4 more.
- Q. Now, in making this estimate, do I understand you that you took each one of these items as shown on the schedule or as reproduced in "Respondent Kinsman Exhibit No. 2," and figure upon each of those items as they run down?
- A. I itemized them myself, Mr. Frank, and figured them. [1712—1623]
 - Q. You itemized them. How do you mean?

- A. Well, I made a pencil list something like Mr. Kinsman's exhibit.
 - Q. You made a pencil list like Kinsman's exhibit?
 - A. Something like it.
- Q. Are these pencil memoranda on the side of this specification what you mean, your pencil list?
 - A. No, sir.
 - Q. Those are not yours? A. Those are mine.
 - Q. Those are yours? A. Yes.
 - Q. Is that the way that you took them?
- A. These lines are merely meant for checking off on my note-book.
 - Q. That is the line—
 - A. Where I made a little pencil mark.
 - Q. On the right-hand side? A. On both sides.
- Q. You say "Checking off your note-book." You mean what?
- A. I mean that these items I checked them in my note-book to see that they all corresponded with what I have in my note-book.
 - Q. That is the same items? A. The same items.
- Q. Is that the only use you made of your notebook? A. What?
 - Q. In connection with these?
- A. No. After I had itemized this list to suit myself I referred to my note-book to refresh my memory.
- Q. Well, is that the itemization indicated on here? I notice there are brackets down here as well as figures.
 - A. Those brackets is where they are slurred to-

(Testimony of Carl E. Klitgaard.) gether, where I have got them as belonging to one in my note-book, for some reason or another.

- Q. And the other check marks are single items; is that how you treated it?
 - A. I would like to look that over, Mr. Frank.
- Q. Well, look it over. I want to find out how you worked it. A. I think that is the idea.
 - Q. That is the idea? A. Yes, sir.
- Q. Now, I find some figures alongside of this also; what do those [1713—1624] figures mean?
 - A. Well, here is one that means the size of a pump.

Mr. McCLANAHAN.—Q. You are referring now to what?

- A. To "Made two brass links and one crosshead for sanitary pump."
 - Q. The size of that pump is what?
- A. 6 by 4 by 6. This query marked here is because of this item, "turned down thrust shaft coupling, and faced off." I made a query mark there because the shaft was not turned down.

Mr. FRANK.—Q. Are you sure it was not turned down?

A. The shaft coupling was not. It was faced off. These figures here probably refer to notations I have in my note-book as to the approximate cost of these various things.

- Q. What are you pointing to?
- A. For instance, here—
- Q. What is it? A. The figure "30"—
- Q. On the second page.
- A. On the second page, yes. It is opposite "made

and fitted Norway ironholding down bolts for spring bearing and thrust-box." This figure 28—

Mr. McCLANAHAN.—Q. Identify it as just below the "30."

A. Just below the 30, opposite also the item reading "H. P. and I. P. Removed for examination, cleaned, oiled and replaced," also probably refers to the approximate time of the work on that job. This query mark opposite, on the third page, "made and fitted strap for hanging spare horseshoe and 2 adjusting nut wrenches," that was put there because that item belongs to a previous contract which we entered into for the reconstruction of the thrust.

Mr. FRANK.—Q. You have been all over that, Mr. Klitgaard, in your direct examination.

Mr. McCLANAHAN.—He is answering your question. [1714—1625]

Mr. FRANK.—Q. You have been all over that in your direct examination and so you need not repeat the whole detail; when you come to that give us the query mark and say "as I have already testified."

A. I thought you wanted me to tell you all those things.

Q. I want to know what they are for.

A. Well, I can't tell you what they are for, unless I read it.

Q. Let us not waste time talking about it.

A. Here is a query mark here.

Q. Yes. Now, what is No. 3 opposite the bracket on the third page—the big bracket?

A. Well, that must refer to the details of that item.

- Q. You don't know what it means now?
- A. I can probably explain it if you will let me read the item, but I can't without.
 - Q. Read it, then.
- A. That is what I am trying to do. I have read all those.
 - Q. Well, what is that?
- A. That is a figure which refers to the contents inside of that bracket, Mr. Frank.
 - Q. Referring to the number of joints?
 - A. No, it does not refer to the number of joints.
 - Q. Well, what does it refer to?
 - A. It refers to the whole business, as a whole.
 - Q. What does it mean?
- A. Probably refers to something in my note-book, as to that item which is enclosed in that.
 - Q. You don't recall now what it means?
- A. May I see the specification? Here it is. No, I don't know what it means at this time.
- Q. What does the "S" mean below it—well, the "S" is on the other side.
- A. It probably means that those items within the brackets are covered by the specification. [1715—1626]
- Q. Well, did you make a distinction then in your estimate between items covered by the specifications and items that were not covered by the specifications?
- A. No; but you see I had several note-books, and the items covered by the specifications were all in one note-book, or practically all in one note-book, and I

bracketed these out so that I would know what notebook to refer to in making my estimate.

- Q. Are Taylor and Burley the only ones you applied to for the amount of material that was going into the ship?
- A. I think so. They were the ones directly connected with it, in charge of that work.
- Q. Well, I am speaking generally of all the work that was performed on the ship at this time.
 - A. Why, no.
 - Q. Who else did you ask?
 - A. Oh, probably asked Siversen and Nelson.
- Q. You say you probably asked Siversen and Nelson. Have you any recollection of asking Siversen?
 - A. I have no distinct recollection; no.
- Q. Well, is that in the same category with your testimony regarding your conversation with Mr. Gray, which you do not wish to affirm or deny?
- A. I do not want to go on record as making a positive statement that I asked him.
- Q. That you asked him. But you are not sure about that? A. No.
- Q. Anybody else that you might possibly have asked?
- A. I might have possibly asked Roberts, the store-keeper.
 - Q. You don't know whether you did or not?
 - A. No, sir.
 - Q. Anybody else?
- A. Well, on some jobs I have asked Williamson, yes.

- Q. On some jobs? What jobs did you ask Williamson on? [1716—1627]
- A. Oh, the compensation work for the low pressure, the amount of bronze that went into the eccentric straps.
 - Q. Anything else?
 - A. The amount of white metal.
 - Q. What?
 - A. The amount of challenge metal.
- Q. The amount of challenge metal? Anything else?
- A. Yes; I must have asked him for the amount of challenge metal that went into the horseshoes.
 - Q. Anything else?
- A. Also as regards the amount of white metal that went into the shoes.
 - Q. Anything else?
- A. I probably got from him the information as regards how much bronze was in the patch, compensation work for No. 7 of the specification.
 - Q. Well, are you sure about that?
 - A. Sure about what?
- Q. That you got that from him? You say "brobably" again.
- A. Well, I can't positively state that I got it from him. I weighed that patch myself.
 - Q. You weighed the patch yourself?
 - A. Yes, sir.
 - Q. Where did you weigh the patch?
 - A. I weighed it up in the shop when it came in.
 - Q. In what shop?

- A. The United Engineering Works.
- Q. Well, what shop do you refer to, the machine-shop or—
- A. The machine-shop where they weigh the castings.
- Q. The machine-shop; that is the only thing you weighed, was it?
 - A. As far as I can recollect, it is the only thing.
- Q. And that is all the information you have in your note-book what you have just been testifying to, that you asked somebody or probably asked somebody?

 A. Yes, sir, except where I saw it myself.

 [1717—1628]
- Q. Well, what do you mean, except where you saw it yourself?
- A. Well, I would not ask them—if I saw the material go on the ship I would not ask anybody else about it.
- Q. But you were not paying close enough attention about people to see it go on the ship so you went around to these different foremen and asked them about the amount of material, and then occasionally you saw it yourself; is that right?
 - A. That is right.
- Q. Of course, you were on the ship at night-time, but by that you do not mean to be understood you were around the ship all the time during the night?
 - A. As a general rule, I was up till about midnight.
 - Q. Up till about midnight and then went to bed?
 - A. And then went to bed.
 - Q. Three or four nights you were gone altogether?

- A. Three or four nights I was over here; yes.
- Q. Of course, during this time Mr. Kinsman had charge of the engineer crew that was at work on the boilers; is that right?

 A. During what time?
- Q. During the time of the repairs on the "Hilonian"?
- A. He had charge of the engineer's crew at that time.
 - Q. That were working on the boilers?
 - A. Auxiliaries.
 - Q. On the auxiliaries? A. Auxiliaries.
 - Q. And the boilers? A. Yes, sir.
- Q. Now, what detail did you have, Mr. Klitgaard, to supplement No. 10 for your figures, "straightened and patched bulkhead on port side of L. P. valve motion and division plate in filter tank"?
- A. I probably only had my knowledge of how long it took to do that work.
 - Q. That is all that you had? A. I think so.
- Q. When the floor plates over the shaft were raised, were they [1718—1629] replaced, the same floor plates? A. No, sir.
 - Q. What was done?
- A. There was no floor plates there, in the first place; there was a grating over there; we put a floor plate on.
 - Q. You put a floor plate on? A. Yes.
 - Q. What detail did you have for that?
- A. I knew at that time how much angle-iron it was and how much labor it was to put the angle-iron on.
 - Q. You got that knowledge, I suppose, as you did

(Testimony of Carl E. Klitgaard.) the rest, by asking Mr. Hurley?

- A. No; I probably saw that myself.
- Q. You probably saw it yourself?
- A. Undoubtedly I did. I saw the work while it was being done.
 - Q. You made a report, you say, of this work?
 - A. Yes.
- Q. Did you make a detail of everything that you had on the work at that time?
- A. That report was made from my notes, and I think specified all the work that was done on the vessel.
- Q. And gave it in full detail as it appeared in your notes?
- A. Pretty near so, I think. My notes may have contained more details than the report did.
 - Q. May have. Are you—
 - A. I know that they did.
 - Q. In what respect?
- A. Well, my notes opposite each of these items that went into the report would,—some of them contained the amount of material that had been put into that, for my own personal benefit.
 - Q. Only some of them?
 - A. Yes; not all of them.
- Q. What particular things were there in there that you considered for your benefit to keep the amount of material for, in your note-book?
- A. I don't know whether I can recollect that now or not, Mr. Frank. On this first page, where it states "secured [1719—1630] angle-iron bars in

(Testimony of Carl E. Klitgaard.) shaft-alley for new flooring support" I had in my notes the amount of angle-iron that went in there. And in the next item I also—

Mr. McCLANAHAN.—Q. What are you referring to?

- A. (Contg.) "supplied and fitted 4 new sheet iron guards for shaft-alley"—
 - Q. What are you reading from?

A. The specification of work said to have been done in San Francisco. That is "Respondent's Klitgaard Exhibit No. 1." To the best of my recollection I had a note opposite that too, as regards how much sheet iron was contained in those four guards. On the same page, the item reading "lagging on main boilers repaired and renewed," I remember making a note there how much lagging there was. On the same page, the item reading "gears refitted with taper pins and oiling devices attached," I had a note as regards what the oiling devices were, and how many pins were used. On page 2 of the same exhibit, the item reading "made and fitted new 4" vapor line with flanges from evaporator to main condensor and new hangers fitted," I had a note on there to the effect that there was 14 feet of pipe; I remember that. And I had a note on as regards how many flanges there were. The same page "run 2½ galvanized suction line from bottom blow to fire pump," I also had a note there as regards how much pipe was used. The same page the item reading "renewed fittings on whistle line above umbrella" I also had a note as regards what the fittings were. On the same page, the

item reading "Made and fitted iron distance pieces for H. P. eccentric rods," I had a note on there as regards the size of that iron. On the same page of the exhibit the item reading, "made and fitted steam gauge boards in engine and fire-rooms, I [1720— 1631] also had a note opposite that as regards the size of those boards. On the third page of the exhibit, the item reading "made and fitted new brass valve seats and discs for same," that refers to the engine-room tank manifold. I had the weight of the brass marked down on that in my notes, for I remember that. On the same page, the item reading "supplied one challenge metal ring casting," I had the weight of that ring casting at the time. On the same page, the item reading, "overhauled revolution counter and reconstructed all rods and levers of same," I was aware of all the new material used on that job. There may be more than that, Mr. Frank, but I can't recall any more just now.

Q. That is all that you can remember, now, that you had any notes of or were aware of at that time?

A. That is all I can remember just now on reading it through.

(A recess was taken until 2 P. M.) [1721—1632]

AFTERNOON SESSION.

CARL E. KLITGAARD, cross-examination resumed:

Mr. FRANK.—Q. Mr. Klitgaard, you have referred here to a main journal contract, Schedule No. 8, \$1350? A. Yes, sir.

- Q. Why was it necessary to do that work?
- A. Mr. Gray suggested to Captain Matson that it would be.
- Q. I am not asking you who suggested anything. I am asking you what the nature of the condition of the engine was that made that work necessary.
 - A. The old brasses were loose in the housings.
 - Q. The old brasses were loose in the housings?
 - A. Yes, sir.
 - Q. They were cracked, weren't they?
 - A. One of them was cracked.
- Q. And the housings themselves were worn down at the bottom?
 - A. The housings were worn down at the bottom?
 - Q. Were they not? A. No, sir.
- Q. Well, at any rate they were not perpendicular, were they? They had to be chipped down?
 - A. You mean the sides of the house?
 - Q. Yes.
 - A. They were not absolutely perpendicular, no.
- Q. That was the effect of that condition of the journals upon the action of the crank-shaft?
- A. It would allow the crank-shaft to move slightly out of its true position.
- Q. That is, it would work athwartship back and forth? A. A little bit.
 - Q. What do you call a little bit?
- A. In this instance probably—I don't know—I should say about a thirty-second of an inch. [1722—1633]
 - Q. Is that all? A. About that.

- Q. Wouldn't you add a couple of thirty-seconds to that? A. No, sir, I don't think I would.
 - Q. You would not? A. No, sir.
 - Q. How long had it been in that condition?
- A. About as long as I had been on the ship, that I know of.
- Q. I suppose an engine in that condition is working well, is it not? You consider it is working well and in good condition for an engine?
- A. Would you mind repeating that question. (The Reporter reads the question.) That engine was in fairly good condition.
 - Q. That is your opinion?
- A. Yes, sir; that the engines of the "Hilonian" were in fairly good condition.
- Q. Did I understand you this morning to say that the first time you met Mr. Putzar, you were introduced to him, just before this work commenced, by Mr. Gray?
- A. Yes, sir; 3 or 4 weeks prior to the commencement of the work.
 - Q. 3 or 4 weeks prior? A. Yes, sir.
 - Q. Was that the first time you met him?
 - A. That was the first time I ever had the pleasure.
 - Q. You did not know him before that?
 - A. No, sir, not even by sight.
- Q. Why do you lay emphasis upon having had the pleasure?

Mr. McCLANAHAN.—I don't know that the witness did lay emphasis on that.

Mr. FRANK.—Of course you do not know any-

(Testimony of Carl E. Klitgaard.) thing that happens here.

Mr. McCLANAHAN.—I know all I want to know.

Mr. FRANK.—Q. Just answer the question, Mr. Klitgaard.

- A. Did I lay emphasis on it? [1723—1634]
- Q. I am asking you why you used that expression with emphasis?
 - A. I don't think I did use it with emphasis.
- Q. You did not? Are you and Mr. Putzar on good terms?
 - A. We are not enemies, if that is what you mean.
- Q. Did you ever see this specification which is marked "Respondent Saunders Exhibit 1" before you came here to testify (pointing)?
- A. I don't know whether I have seen that one there, but I have seen one similar to it.
 - Q. You do not recognize having seen that before?
 - A. Not that particular copy.
- Q. Did you ever see the one that is marked "Siverson Exhibit A'—did you ever see one like that?
 - A. I have seen one like it; yes.
- Q. Did you ever see one like the one marked Libelant's Exhibit, Christy "C"?
 - A. I have seen one like it, with one exception.
 - Q. What is the exception?
- A. The last item. I think the one I saw had on it 25 days as the time limit.
- Q. Now, taking up the specifications, whichever copy you wish, Mr. Klitgaard, referring to the first paragraph No. 1 on the specifications, that air-pump body and valve-chest I understood you this morning

to say that the joint was made with copper gaskets?

- A. I have not said so.
- Q. I understood you to.

Mr. McCLANAHAN.—He did not say so. Kinsman said so.

Mr. FRANK.—Oh. Q. Were they made with copper gaskets?

- A. To the best of my recollection they were.
- Q. Were they not also turned down in the lathe?
- A. The faces were faced off in the lathe.
- Q. That is, instead of filing, is it not?
- A. Yes, sir. [1724—1635]
- Q. Now with reference to No. 13. What, if any, supervision did you give to that particular item?
 - A. I examined all the work that was done to that.
 - Q. Examined the work? A. Yes, sir.
 - Q. What do you mean—after it was finished?
 - A. While it was going on.
- Q. Do you remember what they did to those bulkheads? A. They made them tight.
 - Q. Is that all that you remember about it?
- A. They made them tight; they put some shoes for strengthening on the gusset-frames of the forward tank.
 - Q. Anything else?
 - A. I don't remember just now.
 - Q. You do not remember anything else?
 - A. No, sir.

Mr. FRANK.—Now, I think we will refer to the report, Mr. McClanahan, that you wished to see. Let me ask you, Mr. Klitgaard, if that is not the report

as you turned it in of this work (handing). Just look at the bottom of the pages and see if those are your signatures there.

Mr. McCLANAHAN.—I object to that. The witness can refer to the whole report if he wishes to.

Mr. FRANK.—He certainly can, but I am examining him.

Mr. McCLANAHAN.—You cannot direct him to read that paper as you wish.

Mr. FRANK.—I shall suggest anything I see fit.

Mr. McCLANAHAN.—You need not answer me in that tone of voice.

Mr. FRANK.—I will answer you back in the tone of voice you give.

Mr. McCLANAHAN.—My tone of voice is very quiet.

Mr. FRANK.—Q. Examine the bottom of each of those pages [1725—1636] and tell me whether or not that is not your signature to each one of those.

Mr. McCLANAHAN.—That was not the question you asked him before.

A. Yes, sir.

Mr. McCLANAHAN.—It does not appear that that is his report.

Mr. FRANK.—Q. Are there any changes on the face of that?

Mr. McCLANAHAN.—Q. Examine each sheet, Mr. Klitgaard and see.

A. There are several pencil notations on that.

Mr. FRANK.—Q. Look at those pencil notations and see whether or not they make any changes in the

(Testimony of Carl E. Klitgaard.) report, and if they do not state it correctly, and also

whether or not they are not your notations?

A. They are merely corrections, correcting clerical errors in there. Some of them are mine and some are not mine.

Q. They are all correct, and with the pencil notations it is a true report?

A. Yes, sir. The corrections make the report read as I had intended it to read.

Mr. FRANK.—We ask that that report be marked Libelant's Klitgaard Exhibit No. 2.

(The report is marked "Libelant Klitgaard Exhibit No. 2.")

Mr. FRANK.—I think that is all. Take the witness.

Redirect Examination.

Mr. McCLANAHAN.—Q. Who did you hand this report to representing the Matson Navigation Company?

A. I handed the report to Captain Saunders.

Q. I see, Mr. Klitgaard, that under the title "Work performed but not contracted for," that the report states that the shaft-couplings were turned down. Do you remember what your evidence [1726—1637] was on that subject?

A. Yes, sir; and I also know that the shaft-couplings were not turned down. Why the report reads like that I don't know, unless it was a clerical error made in my own notes.

Q. Was this report made up solely from your

notes? A. Made up entirely from my notes.

- Q. Did you have any assistance in making it up, from anyone? A. Not that I remember now.
- Q. Did you get any information from anyone on which the report is based?
 - A. No, sir, I don't think I did.
- Q. Will you please read the report over to yourself and state if there is anything in that report that is not a fact? Read it carefully.
 - A. Shall I call them off as I come to them?
 - Q. Yes, as you come to them.
- A. The first item; it says "The thrust-shaft couplings were turned down to a smooth surface and faced off." The thrust-shaft couplings were faced off but they were not turned down.
 - Q. Proceed. Take up each separate item.
- A. It says, in the second item, that the first length of intermediate shaft was removed to the shop. "Forward coupling faced and turned down to correspond to trust-shaft coupling." Owing to the fact that the thrust-shaft coupling was not turned down the intermediate shaft was not turned down on the coupling. Item 53. It says, among various other rotations, under that heading "Rollers for chain-leads from quadrant were raised to proper height." That is a mistake. It was not the rollers from the quadrant for the chain-leads that were raised but for the rollers under the quadrant itself. Item 57, where it says, "Drawings and sketches of various parts of engines supplied," [1727—1638] that report was made because Mr. Putzar told me that he

was going to get those drawings and sketches and that no charge was to be made for them. Item No. 1, under "Ship and pipe fitting." It says, "No. 4 tank-tops on port side entirly renewed" and so forth. These tank-tops were not entirely renewed except in so far as this report refers to the bulged or damaged part of the tank-top. No. 13 in that report—

Q. Under the same heading?

A. The same heading: "2 sheet-iron guards for H. P. and L. P. crank-pits supplied and fitted." The guards referred to in this report are not really guards, but are two small straight plates.

Q. What kind of plates?

A. Straight iron plates that were supplied for the side of the H. P. and L. P. crank-pits. Under the caption of "Boilers," item No. 9, it says, "Wroughtiron strap-hangers supplied and fitted on feed and bottom blow-lines as directed." The hangers for the feed-line were supplied and fitted, but the hangers on the bottom blow-line were never supplied. They are reported here as supplied because it was understood that they would be fitted on before the vessel left the port. Under "Minor contracts." Item No. 2, this item deals with the horse-shoes in thrust, "Remetalled with No. 1 Challenge metal on one side only, etc., etc." I reported here that the price of them was to be \$24.48 each, \$146.88, and in my cross-examination this morning I think I made the statement that I did not remember that or something to that effect. I think that is all.

Q. At the time this report was made had you

(Testimony of Carl E. Klitgaard.) knowledge of any dispute likely to arise over the bill or the work? A. No, sir. [1728—1639]

- Q. I see under "Work performed but not contracted for," on the 5th page, item 55, the statement as follows: "Delay on dock due to this work about 60 hours." That refers to what work?
 - A. The work on the gudgeons and rudder.
- Q. That was the work which commenced on the morning of September 11th?
 - A. Yes, sir, September 11th.
- Q. And when did the vessel leave the dock for the Marine railway?
- A. I could not tell you the exact date. The 15th, I think.
- Q. Mr. Klitgaard, the evidence introduced by the libelant shows that the ship came off the Marine railway at one o'clock P. M. on the 16th of September. Bearing in mind the date when the gudgeon work was commenced on the morning of September 11th, and also the date of September 16th, one P. M., when the vessel came off the Marine railway will you please state how you estimated the delay of 60 hours?
- A. The original idea when the ship went on the dock was that she was to be there four days to do work called for in the specifications to the wheel, the tail-shaft and rewooding of the stern, too, etc., but owing to the work which was necessary to the rudder, gudgeons and pintles, and so on, this work was delayed to the extent of about 60 hours.
- Q. That is, you mean that the gudgeon work delayed the ship over and above the four days to the

(Testimony of Carl E. Klitgaard.) extent of 60 hours? A. Yes, sir.

- Q. Do you know whether the work on the wheel and stern frame was finished 60 hours before the work on the gudgeons? A. No, sir, it was not.
 - Q. It was not? A. No, sir.
- Q. When was the work on the wheel and stern frame finished, [1729—1640] with reference to the time that the work on the gudgeons was?
- A. As far as I recollect, the work on the wheel and stern frame was not finished until the morning she went off.
- Q. Was there anything to prevent the carrying on of both classes of work, the work on the wheel and stern frame and the work on the rudder, at the same time?
 - A. Well, the one might interfere with the other.
 - Q. Did you keep time on the gudgeon work?
 - A. No, sir.
- Q. Do you know whether it was done as expeditiously as it could have been done under the circumstances?

 A. Well, I don't know.
- Q. You don't know what tools were used by the United Engineering workmen doing the gudgeon work?

 A. No, sir, I don't remember.
- Q. Would it make a difference in the matter of time in doing the work? A. Yes, sir.
- Q. Would the character of tools used make a difference in the time of doing the work?
 - A. Oh, yes, considerable.
- Q. Mr. Klitgaard, will you please examine again the part of your report entitled "Work performed

but not contracted for," and state whether any of that work set out under that head comes under the original specifications.

- A. Yes, sir, part of the first item does.
- Q. What part?
- A. That referring to the facing off of the thrust-shaft couplings. The second item, I think, after consideration, also comes under No. 9 of the original specifications. The third item also. Likewise the fourth. No. 8 comes under that same item.
 - Q. That is, under No. 9 of the specifications?
- A. Yes, sir. Part of No. 10 comes under No. 9 of the specifications. [1730—1641]
 - Q. What part?
- A. "Main journal binders planed off on sides and bottom. No. 13," referring to the "Spare L. P. valve-stem" comes under the compensation work of No. 2 of the original specifications. No. 21, referring to the "coffer-drains being connected," the assembling of that comes under the main specifications.
 - Q. Mr. Klitgaard, you say "coffer-drains"?
 - A. Yes, sir.
 - Q. What are they?
- A. Coffer-drain is an English expression for drains from valve-chests and cylinders.
 - Q. Is that your expression?
- A. This is my expression, yes, evidently. It is in my report. No. 23, referring to the new brass neck bush, would also come under the item No. 2 of the original specifications. No. 34 says, "Circulating pump valve removed to shop and faced off to suit

new conditions of air-pump." That obviously comes under No. 1 of the specifications. No. 46, "Straps for hanging spare horseshoes," that item comes under the former contract for the reconstruction of the thrust. No. 58, calling for "new asbestos tape under all cylinder-heads," and so forth, comes under the assembling of the work done under the contract. I think that is about all.

- Q. Now, will you please examine the first part of your report and state if there is anything in there that comes under any of the minor contracts that you have testified about.
- A. No. 9 "Horseshoes planed on side to secure a true surface of adjusting nuts." That comes under the schedule 4 of the libel, I think.
- Q. You say "you think"; what do you mean by that? Is it a matter of speculation?
 - A. No, sir, not in my mind.
 - Q. Then state it as a fact.
- A. Item 15, "Thread on I. P. rod chased up, and new bronze nuts cast and fitted." That comes [1731—1642] under Schedule 4.
 - Q. Of the libel?
 - A. Of the libel. That is all, I think.
- Q. Mr. Klitgaard, under the head of "Ship and pipe fitting" on your report, is that work supposed to be work not contracted for. Does it come under the same general heading as the other?
 - A. Yes, sir.
- Q. Would you please go through that heading and tell me if there is any work on that that belongs to

the specifications, and in order to shorten the examination you may also examine that heading with reference to whether any of that work belongs to any of the minor contracts?

A. Item No. 7 reading, "Floor plates and supports at back of engine reconstructed and renewed." Part of that work was necessitated by the circulating pump contract. The next item No. 8, part of that was necessitated on account of the work done under No. 9 of the original specifications. No. 19, referring to the "water service," the reconnecting of that comes under the original specifications.

Q. Under the assembling work?

A. Under the assembling of the original specifications. No. 27 referring to the "water service for the thrust" also comes under the reassembling. No. 28, that work was necessitated by the work called for under No. 9 of the original specifications. No. 29, referring to the "connecting of copper pipes, etc.," that comes under the assembling of the work done under the contract.

Q. I refer you to your subdivision under the title "Boilers," and ask you to make the same examination for the same purpose.

A. No. 7. That item is covered by Schedule 9 of the libel. No. 10, that is also covered by No. 9 of the libel.

Q. Referring you to your title "Deck" on this report, I ask you to make the same examination for the same purpose. [1732—1643]

A. No. 6, referring to the "smokestack guys, etc.,"

(Testimony of Carl E. Klitgaard.) that is covered by Schedule No. 9 of the libel.

Q. Mr. Klitgaard, referring to your report under the title "Minor contracts," I see that there is an omission of the contract covered by Schedule 8 of the libel. Can you explain why that was omitted? No. 8 of the libel is the main-bearing.

A. That contract was made by Captain Matson and Mr. Gray previous to the work attempted on the "Hilonian."

Q. Now, I refer you to your report under the same heading for the "new top for breaching smoke-stack," where you state that the contract is for \$160.

A. Yes, sir.

Q. Calling your attention to Schedule 9, and to your evidence in the case, I ask you to make the explanation, if you have one, why your report calls for \$186?

A. I don't know, unless it is an error in the type-writing of this thing.

Q. Have you any explanation to make why, under these different headings, you included work that you now testify was covered by the original specifications, and also your minor contracts?

A. At the time that report was made, it was made more with the idea of showing the work that had been done, and I never had any idea that there would be a controversy over the matter. I did not go into any great detail as regards segregating the work when I made my report.

Q. Referring you to your subdivision, "Ship and pipe fitting" and to your subdivision "Boilers," and

(Testimony of Carl E. Klitgaard.)

to your subdivision "Deck," do those different subdivisions set out, with the exceptions that you have made, all of the work under those different headings, irrespective of whether it was contract work or extra work?

A. Yes, sir, I think so.

- Q. Mr. Klitgaard, did you at any time ever discuss with Mr. [1733—1644] Gray the value of the work which was done at this time?
 - A. Oh, yes, on several occasions.
 - Q. Was that before or after the controversy arose?
 - A. This was long before.
 - Q. Before the controversy? A. Yes, sir.
 - Q. What was the discussion?
 - A. As regards to how much the bill would be.
 - Q. What was Mr. Gray's opinion in that matter?
- A. He thought it would go up to about \$20,000, and was very much worried about it.
 - Q. He was worried about it?
 - A. Yes, sir, because the bill would go so high.
 - Q. That is the entire bill, \$20,000? A. Yes, sir.
- Q. Have you compared your "Exhibit No. 1" with the Schedule marked 1, attached to the libel?
 - A. Yes, sir.
 - Q. What was the result of the comparison?
- A. It is a duplicate of Schedule 1 of the libel but it contains than Schedule 1 contains.
- Q. I will add to my question: Have you compared the work set out in the schedules of the libel, with the work set out on your "Exhibit 1"?
 - A. Yes, sir.
 - Q. And they correspond, do they?

(Testimony of Carl E. Klitgaard.)

- A. They correspond.
- Q. What was the purpose of your asking these various employees of the United Engineering Works about the material, weight, etc., that was going into the work?
- A. Oh, merely to find out for my own satisfaction about how much the various jobs cost.
 - Q. Is that a part of your duty?
 - A. No, sir. Strictly speaking, I do not think it is.
- Q. Did we have any difficulty in getting you to make an estimate on this work?
 - A. Yes, sir. [1734—1645]
- Mr. FRANK.—I should like to know how that is material.
- Mr. McCLANAHAN.—Q. What was the difficulty?
- Mr. FRANK.—I am still objecting, Mr. McClanahan. That would be a very fine piece of self-serving testimony. I am still objecting as incompetent and immaterial.
- Mr. McCLANAHAN.—Q. What was the difficulty?
- A. I did not care to estimate the work. I did not want to enter into any controversy about it.
 - Q. What led you to finally make the estimate?
- A. Well, the matter was put up to me that it was my duty, being an ex-employee of the Matson Navigation Company and having been in charge of the work while she was being overhauled, it was my duty to help as much as possible in segregating this work.

(Testimony of Carl E. Klitgaard.)

- Q. You are not in the employ of the Matson Navigation Company now, are you? A. No, sir.
- Q. Are your relations with Mr. Gray still as friendly as they always have been?
 - A. I think so; as far as I am concerned they are.
- Q. Did Mr. Gray have any connection with the main bearing contract? You started in your cross-examination and mentioned his name in connection with the question that Mr. Frank asked you and you were shut off?
- A. The main bearing? That contract was made entirely with Mr. Gray and Captain Matson.
- Q. And that is what you were about to say when you were stopped by Mr. Frank?
 - A. I don't just remember the question.

Mr. McCLANAHAN.—That is all.

Mr. FRANK.—That is all.

(An adjournment was here taken until to-morrow, Saturday, November 4th, 1911, at 10 A. M.) [1735—1646]

Saturday, November 4th, 1911.

Mr. FRANK.—Before we start in on this witness, I want to enter a motion to strike out all the testimony of Mr. Klitgaard relating to his estimates, on the ground that it is entirely hearsay, incompetent, and immaterial.

[Testimony of Lionel Heynemann, for Respondent.] LIONEL HEYNEMANN, called for the respondent, sworn.

Mr. McCLANAHAN.—Q. What is your name? A. Lionel Heynemann.

- Q. Where do you reside? A. San Francisco.
- Q. What is your age?
- A. 53, I think, or 54—54.
- Q. What is your profession?
- A. I am an engineer.
- Q. Mr. Heynemann, you have prepared a statement, have you not, of your professional life?
 - A. I have.
- Q. Will you please state what that has been, referring to the statement if you wish?
 - A. From the beginning?
 - Q. Yes; right from the start.
- A. After a public school education I was an apprentice at the Fulton Iron Works.
 - Q. In San Francisco? A. In San Francisco.
 - Q. When was that?
- A. That was in 1871. 1872 I went to Europe and studied there at the Royal Polytechnic School at Hanover.
 - Q. Germany? A. Germany.
 - Q. How long was your course of study there?
 - A. About 5 years.
 - Mr. FRANK.—Q. At Hanover?
- A. At Hanover, Germany. Then I took a job as engineer on the Prussian State Railways for one year as an engineer. After that I returned to this country, and for several years was engaged with mining companies [1736—1647] as an engineer.

Mr. McCLANAHAN.—Q. Do you remember what these mining companies were?

A. One was the Sulphur Bank Quicksilver Mining

Company; another was the Almaden Quicksilver Mining Company. After that I was chief engineer of the Pioneer Woolen Mills.

- Q. Whereabouts?
- A. In San Francisco. Then I was a draughtsman at several of the iron works, the Union Iron Works, the National Iron Works, the Etna Iron Works, and the Honolulu Iron Works.
- Q. For how long a period did your engagements with the iron works run?
 - A. I should say three or four years.
 - Q. What do you mean by being a draughtsman?
- A. A draughtsman is a man that makes the drawings, and the designs for machinery that is afterwards built by the works.
- Q. What machinery do these works that you have referred to make?
- A. Most of them were engaged in a general line of business. At that time the Union Iron Works was manufacturing marine engines, though not nearly to the extent that they did afterwards.
- Q. Did you have any connection while there with that class of work? A. No, sir, I did not.
 - Q. Proceed.
- A. Then I was for six years, I think—six or seven years—with the Southern Pacific Company as an engineer in their construction department.
 - Q. Construction of what?
- A. Most of our business consisted of the construction of the cable roads of this city.
 - Q. Proceed.

- A. After that I became the Secretary of the Fulton Iron Works.
 - Q. What year was that in?
 - A. That was in 1892.
 - Q. The Fulton Iron Works of this city?
 - A. San Francisco.
- Q. How long did you remain as secretary of the Fulton Iron Works?
 - A. About 13 years. [1737—1648]
- Q. Will you state in detail what line of work your duties as secretary brought you in contact with during the period you were secretary, with special reference to marine matters?
- A. Besides the regular duties of a secretary in any corporation I exercised a general supervision over the works, attended to their finances, and made a great many estimates for work, put in bids, and rustled around for orders.
- Q. Does your statement apply at all to marine work?
- A. Yes, sir. Most of the estimates I made were on the marine end of it.
- Q. What class of marine work did you make estimates on? A. Nearly entirely repair work.
 - Q. Repairs to what? A. Repairs to vessels.
 - Q. What parts of vessels? A. All parts.
- Q. Has that anything to do with the repairs to machinery? A. Yes, sir.
- Q. When estimates were made, and the Fulton Iron Works secured the work, did you have anything to do with the construction of the work or the mak-

(Testimony of Lionel Heynemann.) ing of repairs?

- A. Very little. Our marine superintendent attended to that part of it.
 - Q. When did you leave the Fulton Iron Works?
- A. 1905, I think. Since that time I have been the consulting engineer and Pacific Coast Manager for the Goldschmidt Thermit Company.
 - Q. Has that been your sole occupation since 1905?
- A. No, sir. I have also represented the Overhead Crane concern of Milwaukee.
 - Q. Have those two been your sole occupations?
- A. Those two have been my sole occupations, with the exception of once in a while being consulted in reference to marine work.
- Q. Consulted by whom? Not naming the parties, but the class.
 - A. By different companies. [1738—1649]
 - Q. By different companies? A. Yes, sir.
 - Q. What kind of companies?
 - A. Steamship companies.
 - Q, What do you mean by being consulted?
- A. In reference to the decision, or rather in reference to giving them an opinion about certain debatable conditions, or conditions that were debated at the time; in other words, giving an opinion.
- Q. Conditions that were debatable pertaining to what? A. Pertaining to steamers.
 - Q. What parts of steamers?
- A. I don't know that I can answer that question in that way. I have been consulted in cases where the resistance of vessels at sea formed quite a part.

- Q. Have you had any work of that character with reference to machinery of vessels? A. Yes, sir.
- Q. You understand, Mr. Heynemann, that you have been called here to testify in regard to machinery work, do you not?
 - A. Not alone machinery work, but also hull work.
- Q. You know you have been called to testify as to machinery? A. Yes, sir.
- Q. Therefore, we are interested in knowing your experience particularly in that line? A. Yes, sir.
- Q. What was the foundation of your marine education?
- A. My experience at the Fulton Iron Works, besides my theoretical education in Hanover.
 - Q. At the Royal Polytechnic School?
 - A. Yes, sir.
- Q. What period of time in your professional life would you say your experience as a marine engineer has extended over?
- A. That is rather a difficult question to answer for me, because during the time I was draughtsman with some of the other foundries, I came in direct connection with marine work, and the periods were intermittent. At the Aetna Iron Works I do not think we had any [1739—1650] marine work; at the Honolulu Works we had some; so that in that way my experience has been intermittent.
- Q. Would that statement apply to your experience at the Fulton Iron Works?
- A. No, sir. At the Fulton Iron Works we had marine work all the time.

- Q. That you were connected with?
- A. Yes, sir.
- Q. In the way that you have stated?
- A. Yes, sir.
- Q. I understand that included making estimates?
- A. Yes, sir; that included making estimates and getting work, putting in bids.
- Q. Were you familiar with the cost of material and labor put into and used upon marine repair work in the year 1909? A. Yes, sir.
- Q. You understand the nature of this litigation, do you not, Mr. Heynemann? A. Yes, sir.
- Q. It is a suit brought by the United Engineering Works against the Matson Navigation Company for a repair bill on the steamer "Hilonian"?
 - A. Yes, sir.
- Q. Will you please examine the first three pages of Schedule 1 attached to the libel in this case, and also Schedules 2 to 10, attached to the libel in this case, and state whether you are familiar with the matter contained therein.
- A. I take for granted that the first three pages is a copy of the billhead of the United Engineering Works without reading it through item by item. The same applies to Schedule 2. The same to Schedule 3.
- Q. You may disregard the second page of Schedule 3 and pass on to Schedule 4.
 - A. Schedule 4—
 - Q. Make your comment in regard to Schedule 4.

A. The same applies to Schedule 4. The same applies to 5; the same applies to 6, 7, 8, 9 and 10. [1740—1651]

Q. Mr. Heynemann, in the course of your examination you may assume that this document which I hand you, which is marked "Respondent Kinsman Exhibit No. 2," is a copy of the first three pages of Schedule 1 attached to the libel. You may also assume that the paper I now hand you marked "Respondent Sanders Exhibit No. 1" is a copy of specifications prepared by the respondent in this case and submitted for bids to the United Engineering Works, the libelant. You may assume also that the bid of the United Engineering Works for the work covered by the specifications was accepted, the work to be done for the sum of \$11,749 on a 25-day time limit, calendar days. You may also assume that after the work was undertaken by the United Engineering Works that by reason of certain agreements between representatives of the respondent and the libelant certain changes were made in the work called for by the specifications; that the changes so made were agreed to be made without affecting the contract; that there was a change of this character made in the second item of the specification; that there was a change of this character made in the fourth item; and in the fifth, and the seventh, and in the 14th. You may also further assume that the "Hilonian" was delivered at the yards of the United Engineering Works, to the libelant, on the morning of the 23d of August, 1909. You may also assume that in the

course of the work the vessel was docked on the marine railway of the United Engineering Works at 1 o'clock on the 10th of September, 1909 and left the marine railway at 1 o'clock on the 16th of September, 1909. You may also assume that there are six holidays, including Sundays, in the period of 25calendar days running from the 23d of August, 1909. I think that is all for the present. I will ask you to bear in mind during your examination [1741— 1652] these various assumptions. However, I will make one or two more, while I think of it. You may assume, Mr. Heynemann, that there is no dispute between the parties in this action over the sum of \$170.06 found on schedule 2 of the libel. You may assume there is no dispute between the parties to the sum of \$540.61 found on the first page of schedule 3 of the libel. You may assume as to schedule 4 that there is no dispute between the parties as to the first item of \$330, as to the fourth item of \$50, or to the fifth item of \$40. You may assume there is no dispute between the parties over the charges found on schedules 5, 6, 7 and 8; you may assume that there is no dispute between the parties as to the charge found on schedule 9 reading as follows: "To construction of new smokestack removing old and installing new \$900," and that there is no dispute over the charge found on the 10th schedule. You may also assume that under the original specification the crank-shaft of the steamer "Hilonian," called for removal under the 9th specification, was not removed from the ship. Showing you "Kinsman's Exhibit

No. 2," Mr. Heynemann, I will ask you if you have made an examination of any part of that work.

- A. I have.
- Q. Have you done it alone, or in collaboration with some else?
- A. I have done it in collaboration with Mr. Gardner.
 - Q. Mr. Fred Gardner? A. Mr. Fred Gardner.
 - Q. Who is Mr. Gardner?
 - A. Mr. Gardner is a consulting engineer.
 - Q. Of this city? A. Of San Francisco.
 - Q. Where was this inspection made?
 - A. On the steamer "Hilonian."
- 'Q. While in this port? A. While in this port. [1742—1653]
- Q. Have you made such inspection and examination more than once? A. Yes, sir.
 - Q. How many times have you?
 - A. I have made it at least six times.
 - Q. Each time with Mr. Gardner?
- A. No, sir; I was alone once or twice—once. I was alone once that I positively remember.
- Q. What was that, what day of the week if you cannot place it any better?
- A. I think that was on a Sunday. I know it was on a Sunday.
- Q. At the times of inspection with Mr. Gardner, how were you enabled to see the work that had been done?
- A. We were taken around by Captain Saunders and Mr. Kinsman, Mr. Kinsman, particularly. Cap-

(Testimony of Lionel Heynemann.) tain Saunders was not always there.

- Q. And what did Mr. Kinsman do?
- A. Mr. Kinsman went through every item of the billhead and the contract, showing us the work and explaining what had been done.
- Q. How long a time, approximately, were you engaged in inspecting this work on these several occasions?
- A. That is difficult for me to answer. I do not remember.
- Q. Do not drop that there. Was it a matter of minutes or fractions of minutes?
 - A. It was a matter of hours.
 - Q. On each occasion?
- A. On each occasion; a matter of a good many hours, I will say, on each occasion.
- Q. Can you remember any particular occasion when it was a number of hours that you might testify to?

 A. No, sir; I could not.
 - Q. What do you mean by a good many hours?
 - A. 7 or 8 hours.
- Q. What did you and Mr. Gardner do aside from receiving [1743—1654] from Mr. Kinsman and Captain Saunders statements in regard to the work and the view of the work?

 A. We measured it up.
 - Q. What do you mean by "measured it up"?
- A. Took our footrule and measured the sizes of different work so as to enable us to make an intelligent estimate.
- Q. Did you do anything else besides measuring the work?

 A. We made a few rough sketches.

- Q. Anything else?
- A. I should say that we did all that we could think of so as to enable us to make an intelligent estimate.
 - Q. An intelligent estimate of what?
 - A. Of the work done under the contract.
 - Q. You mean estimate of the value?
 - A. Estimate of the value of the work.
- Q. I think I will let you take "Kinsman Exhibit No. 2" and you may have also in your hand "Respondent Saunder's Exhibit No. 1." Referring to "Respondent Saunders Exhibit No. 1," first, I will ask you whether you know what work was done on the "Hilonian" instead of the work called for by No. 2 of the specifications.

Mr. FRANK.—Are you calling now for something that this witness knows of his own knowledge or on what is his knowledge based—something that is told to him.

Mr. McCLANAHAN.—You will find out.

Mr. FRANK.—I want to find out.

- Q. Is that the only evidence?
- A. It was based on what we saw.
- Q. What was pointed out to you?
- A. Yes, sir. Not alone pointed out, but we saw.
- Q. It was described to you and pointed out to you on the ship [1744—1655] and at the time you were there with Mr. Kinsman, as to what you saw as you have just testified? A. Yes, sir.

Mr. FRANK.—I certainly object to that as calling for hearsay testimony.

Mr. McCLANAHAN.—Q. Proceed. What work

was done instead of the work called for under No. 2?

A. Instead of No. 2, the low-pressure valve and face were not planed off, and the work as specified under No. 2 was not done. Instead a balance-cylinder was made as a recompense for not doing the work specified under No. 2.

- Q. Did you see that balance-cylinder?
- A. I did.
- Q. Did you make an examination of it?
- A. I did.
- Q. And the work in connection with it?
- A. I did.
- Q. Calling your attention to No. 4 of the specifications, I will ask you the same question: what was done in regard to that specification that was not called for by the specifications?

Mr. FRANK.—Q. It is understood that all your information is the same as you have already testified to with respect to No. 2?

- A. Am I asked the question?
- Q. You are asked the question. A. Yes, sir.

Mr. FRANK.—The same objection to all this examination.

A. With reference to No. 4 the work was not done exactly as specified. It states, "If plates show tendency to spring, place about 8 or 10 screwed stays in each." This work was not done but instead a heavier plate than the original one was furnished and finished and put in place. With reference to the "reconstruction of the H. P. and I. P. shoes as directed," these were not reconstructed but new

(Testimony of Lionel Heynemann.) shoes made instead, and a certain amount of Challenge metal used in connection with the same.

[1745—1656]

- Mr. McCLANAHAN.—Q. I understand, Mr. Heynemann, that you have made an estimate of the value of the work performed on the occasion in suit?
 - A. Yes, sir.
- Q. I will also ask you, now, before I forget it, in passing on, whether or no any allowance as an extra was made to the United Engineering Works, in your estimate on the Challenge metal referred to in your last answer.

 A. It was allowed as an extra.
- Q. Passing, now, to No. 5 of the original specifications, I will ask you the same question that I did with reference to No. 4.

Mr. FRANK.—The same objection.

A. It calls for the remetalling of the H. P. and L. P. eccentric straps, with best grade of Challenge metal and other work. Instead of the work having been done as per this item No. 5, only the H. P. eccentric strap was remetalled and the low pressure was furnished and fitted with bronze straps and we made an extra allowance for this bronze. These bronze straps were also pocketed and babbitted with Challenge metal, and we made an allowance for this extra Challenge metal in our estimates, and also for the bronze.

Mr. McCLANAHAN.—Q. When you say "we" you refer to— A. To Mr. Gardner and myself.

Q. Turning, now, to the seventh item of the specification, I will ask you the same question with refer-

(Testimony of Lionel Heynemann.) ence to the question asked in regard to No. 4.

Mr. FRANK.—The same objection.

A. This work was not done as specified. Instead, however, a bronze patch was fitted to the housings to perform the same purpose for which the iron column was intended.

Mr. McCLANAHAN.—Q. I will ask you the same question with reference to the 14th item of the specifications? [1746—1657]

Mr. FRANK.—The same objection.

A. The windlass was not repaired.

Mr. McCLANAHAN.—Q. You are now referring to the 14th item?

A. I am now referring to the 14th item. The windlass was not repaired, but instead there was two channel iron stanchions placed under the forecastle-head deck.

Q. I have asked you with reference to No. 9, to assume that the crank-shaft was not removed from the ship? A. Yes, sir.

Q. In order to save time and expedite your examination, I am going to ask you to take "Kinsman Exhibit 2" and go over it, item by item, commencing with the first, and the questions which you are to answer in regard to each item will cover the matter of your having seen or not seen the item under discussion, as well as whether in your opinion the item under discussion should properly belong to any one of the specification items or to any one of the minor contracts which you have been shown as attached to the libel numbered 4 to 10, and, before commencing

your statement, I am reminded to make another assumption for your benefit. You may assume that at the time of the repairs in question the United Engineering Works were under a contract with the Matson Navigation Company to supply and install complete and in running order one circulator, having a 30-inch composition runner, and 8 inches by 6 inches single piston-valve engine, all to be complete, coupled up with all pipe connections, valves, etc. Now, will you commence, Mr. Heynemann, with No. 1 of "Kinsman Exhibit No. 2" and answer as to that item the questions that are included in my question?

A. No. 1; most of that work I saw. The angleirons under the tank-top could not be seen.

Mr. FRANK.—Q. In order also to save time, we understand [1747—1658] whenever you say you saw any work, you mean that the work was pointed out to you by Kinsman? That is the only occasion.

A. No, sir; I saw the tank-top, not the work, but I saw actually the tank-top.

Q. I mean the particular extent of the work was pointed out to you by Kinsman. You did not see the work when it was being done?

Mr. McCLANAHAN—I object to Mr. Frank at this time attempting to limit the statement of the witness in the way suggested. I think when I have finished with my examination that Mr. Frank will see that all the matter has been covered, and if not all covered he will have the opportunity to cross-examine. A. No, sir.

Mr. McCLANAHAN.—We will make the admission that Mr. Heynemann did not see the work as it was being done.

The WITNESS.—I would very much prefer, because it would be less confusing to me, if I could go through these specifications first in one way and then in another.

Mr. McCLANAHAN.—Q. I will fix it so that it will not be confusing, and will assist you to that end. I simply make this suggestion in order to save the record and time. I am going to ask you about the tank-top. You say you saw the tank-top?

A. I saw the tank-top, but could not see the support under the tank-top. At the same time the rivet work shows on the tank-top itself showing very well what work was done below the tank-top.

Q. You know the construction underneath the tank-top? A. Yes, sir.

Q. Will you please state what you did with reference to an inspection, if anything, on the tank-top, and the work performed? [1748—1659]

A. We went on board the ship, looked at it, measured it up, counted the number of plates, made a little sketch of it and went through the work as if we had to estimate on it ourselves. I would like to correct my statement to this extent, that while the rivets on the top show the location of the top supports, of course they would not show the location of the bottom angle-irons that are affixed to the skin of the ship.

Q. Will you state now what was the result of your

(Testimony of Lionel Heynemann.) inspection of the tank-tops with reference to the extent of the work.

- A. The work of renewing the tank-tops was limited to the plates that could be seen in No. 4 tank, with the exception of the first plate forward of the after bulkhead of No. 4 tank, and the first plate aft of the forward bulkhead, and besides, the plates in the shaft-alley were not renewed.
 - Q. That is, on the port side of No. 4 tank?
 - A. On the port side of the No. 4 tank.
- Q. State whether or not the margin-plates were renewed in that tank.
 - A. The margin-plates were not renewed.
- Q. Does that belong to any one of the items of the specifications? A. No, sir, it does not.
- Q. How was it figured on by you and Mr. Gardner? As an extra? A. Yes, sir.
 - Q. Pass to No. 2.
- A. We saw the vessel on the drydock and saw the places where the holes had been originally cut and saw the plugs.
- Q. Does that belong to any item of the specification? A. I don't think it does.
 - Q. Is it figured on as an extra?
 - A. It is figured on as an extra.
 - Q. Pass to No. 3.
- A. With reference to the patches, they [1749—1660] could not be seen. They were covered by the paint. With reference to the $2\frac{1}{2}$ inch sounding-pipe in No. 3 and No. 4 tanks we saw them, and we figured on them as an extra.

- Q. When you say "them" as an extra, what do you allude to?

 A. The sounding-pipes.
 - Q. As distinguished from the balance of the item?
 - A. We figured on the whole item as an extra.
 - Q. Pass to No. 4.
- A. We saw them and figured on the whole item as an extra.
 - Q. Pass to No. 5.
 - A. The same in reference to No. 5.
 - Q. Pass to No. 6.
- A. With reference to No. 6, most of that work we considered as belonging properly to item No. 1 in the main specifications. We say the floor-plates at the back of the engine, but we only figured for handling these plates because, as I say, we thought it belonged to item No. 1 in reference to removing the air-pump body, and also on account of the contract for the circulator, stating that the pump had to be furnished and installed.
- Q. Was there any part of item No. 6 that you did figure on as an extra?
- A. Yes, sir, we figured on the handling of the plates as an extra, and we also figured on a small platform that goes over the shaft between the last crank-shaft coupling and the first thrust-shaft coupling.
 - Q. And that is all? A. That is all.
 - Q. Pass to No. 7.
 - A. That answer that I made refers to items 6 and 7.
 - Q. What part of the answer refers to 7?
 - A. The raising of the floor-plates and figuring on

(Testimony of Lionel Heynemann.) them as an extra over the shaft.

- Q. Figuring on the floor-plates or the handling?
 [1750—1661]
- A. The floor-plates and the handling. We figured on the whole item of No. 7 as an extra.
 - Q. The whole item of No. 7 as an extra?
 - A. Yes, sir.
- Q. Did you see the matter called for in No. 7 as well as No. 6? A. Yes, sir.
 - Q. Proceed to No. 8.
- A. I saw the handrails around the low-pressure valve motion and I. P. and H. P. engines, and figured on the same as an extra. The reconstruction was not figured on broadly, but we understood they were changed to suit either Mr. Kinsman or Mr. Putzar, and we figured on changing the handrails around the L. P. valve motion, and I. P. and H. P. engines.
 - Q. You figured on that as an extra?
 - A. As an extra.
 - Q. Pass to No. 9.
- A. We saw them and figured on the same as an extra.
 - Q. Pass to No. 10.
- A. We saw that and figured on the same as an extra.
 - Q. Pass to No. 11.
- A. The same applies to No. 11. The same applies to No. 12. The same applies to No. 13. The same applies to No. 14. The same applies to No. 15. No. 16. No. 17. No. 18. That was something that we could not see. No. 18 we did not see but it was

thoroughly explained to us by Mr. Kinsman, and we figured the same as an extra. No. 19 we saw and figured on the same as an extra. No. 20 we saw and figured on the same as an extra. No. 21 we saw and figured on the same as an extra. No. 22; we saw the body of these valves but we could not see the disc nor the seat, but these were described to us so that we could make a figure on them and we did so as an extra.

- Q. Did you see any similar discs? [1751—1662]
- A. Yes, sir, and were shown spares on board.
- Q. What do you mean by "spares"?
- A. Spare discs.
- Q. What do you mean by "spares"?
- A. A spare is an article that is used as a duplicate, so that in case of one being out of order, the other can be installed.
 - Q. What spares did you see of item No. 22?
 - A. We saw a spare valve disc.
 - Q. Pass to No. 23.
- A. In No. 23 we did not see the valve disc, nor the seat. We saw the yoke and the stem, and we figured on the same as an extra, and were able to do so by descriptions given to us by Mr. Kinsman.
- Q. Did you see any spares in connection with that item? A. I don't remember that we did.
 - Q. Pass on to 24.
- A. We saw the strap-hangers to the feed but not to the bottom blowlines. We hunted for them but could not find them, so we only figured and allowed as an extra the strap-hangers for the feed.

Q. For the feed-lines?

A. The feed-lines. Item 25; we saw and figured on the same as an extra. Item 26; we did not see the damper but we did see the handle, but by moving the handle we could feel the damper. We knew that the damper was there. We did not figure on the same as an extra because we thought it properly belonged to the installation of the stack which is Schedule No. 9.

Q. Of the libel? A. Of the libel.

Q. That is the nine hundred dollar item on that schedule?

A. Yes, sir, that is the nine hundred dollar item on Schedule 9.

Q. Pass on.

A. No. 27; we saw the extra stanchion but did not figure on the same as we thought it belonged to the [1752—1663] first item in Schedule No. 9, \$900 for the stack and the installation of the same. No. 28 we saw and figured on as an extra. No. 29 we saw, but did not figure on as an extra, as we thought it belonged to the first item in Schedule No. 9 of the libel. No. 30a, we saw and figured on the same as an extra. No. 30b, the same applies to. The same applies to No. 31. No. 32; we diligently sought the broken beam in between decks but it never was pointed out to us, yet we figured on the same from descriptions given to us as an extra.

Q. How were you enabled to do that?

A. We were given the sizes of the patch, and we know what the stanchion is, and all that it meant was

the putting on of the patch on the deck-beams. We knew the height of the deck-beams and also knew what the stanchion is.

- Q. How much of an item is that, roughly speaking?
- A. I don't remember now. I don't remember what our estimate is.
 - Q. Is it a matter of considerable value?
 - A. No, sir, it is not a matter of considerable value.
 - Q. Proceed.
- A. No. 33 we saw and figured on as an extra. No. 34 the same. 35 the same. 36 the same. 37 the same. 38 the same. 39 we did not see but we saw the diameter of the rudder-stock and were able to figure on the brass liner for the same as an extra. No. 40 we saw. When I say we saw it, we saw one edge of it and figured on the same as an extra. No. 41; we saw the chain leads but we did not figure on this work because the work was not done. however, there was some rollers under the quadrant that were raised, and which we saw and figured on No. 42 we saw and figured on the same as an extra. The same in No. 43. The same as an extra. **—1664**] in No. 44. No. 45; we could not see the key way in the new propeller, but figured on the same as an extra—no, we did not figure on the same as an extra because item No. 9 in the general specifications calls for new wheel to be fitted to the satisfaction of the owner's representative.
 - Q. Why did you not figure on it?
- A. We did not figure on it because that came under the contract.

Q. Under item 9 of the original specifications?

A. Under item 9 of the original specifications. No. 46 we saw and figured as an extra. No. 47 we saw and figured on as an extra. The same with No. 48. The same with No. 49. The same with No. 50. No. 51; we did not see the valves but we think that the item 51 reads wrong. It reads "all sea suction-valves drilled and tapped." It should read "all sea suction valve bodies drilled and tapped." We saw the valve bodies and figured on the same as an extra. Item 52; we saw item 52 and figured on the same as an extra. No. 53; we saw the propeller-blade but did not figure on the chipping of the one blade on account of the last item, item No. 9 of the general specifications.

Q. You say on the chipping of the one blade?

A. The chipping of each blade, I mean, on account of item No. 9 of the specifications.

Q. That is, in your opinion, it belongs to No. 9?

A. It belongs to the last item of No. 9 in the specifications: "new wheel to be fitted to the satisfaction of owner's representative." No. 54, we saw and figured on the same as an extra. No. 55 we saw and figured on the same as an extra. No. 56 the same. [1754—1665]

Q. With reference to No. 55, is any part of that chargeable to any one of the items of the specifications?

A. We considered that part of 55 belonged to the reassembling in item No. 9 of the general specifica-

(Testimony of Lionel Heynemann.) tions, but we did not figure on part of the 4-inch vapor pipe.

- Q. Which you did not consider belonged to the general assemblage?
- A. Which we did not consider belonged to the general assemblage. No. 56 we saw and figured on the same as an extra. No. 57 we saw and figured on the same as an extra. No. 58 we considered as belonging to item No. 9 of the specifications, but we did make an allowance for joints.
 - Q. For new joints, do you mean?
- A. Yes, sir, for new joints. With reference to item No. 59, we did not see these fittings on the whistle-line because they had been removed by the crew and flanges put on instead. At the same time it was described to us what fittings were used, and we figured on the same as an extra. No. 60 we saw and figured on the same as an extra. No. 61 we saw and figured on the same as an extra. No. 62; we did not consider that the bilge pump body was removed for the purpose stated, that is, to braze the copper pipe. It was made necessary by the removal of the air-pump which comes under item No. 1 of the general specifications.
 - Q. Did you see it?
- A. We saw it. No. 63 we saw and figured on the same as an extra. The same with regard to No. 64. No. 65 we could not see, because the floating top is part of the interior of the air-pump, but very accurate descriptions were given to us enabling us to figure on the same, which we did as an extra. No.

66, we did not see, but from descriptions, were able to figure on the same as an extra. No. 67 we [1755—1666] saw but did not figure on the same because it belonged to item No. 1 of the general specifications.

- Q. Calling your attention to item 67, I will ask you if that is at all connected with any item of the specifications? A. It is connected with item 11.
 - Q. In what particular?
- A. Item 67 calls for the removal of the circulating pump-valve to shop. Item No. 11 of the general specifications calls for the removal of the valve-chamber of circulating pump, to be removed "and a plate to take old study fitted."
- Q. Is the valve-chamber the same as the pump-valve? A. No, sir.
 - Q. What connection has it with item 11?
- A. It has this connection. The circulating pumpvalve had to be faced off in order to form a support and to fit the plate that was arranged to take the circulating pump discharge.
 - Q. As called for by item 11?
 - A. As called for by item 11.
 - Q. Proceed.
- A. We saw No. 68 and figured on the same as an extra.
- Q. Referring again to No. 67, I understand you to say you did not figure on that?
- A. No, sir, we did not figure on that. No. 68 we saw and figured on that as an extra. The same with No. 69. No. 70; we did not figure on turning down

the thrust shaft couplings because we could see no evidence that they ever had been turned down. With reference to the facing off we considered that that belonged to item No. 9.

- Q. If the couplings had been turned down would there have been evidence of the work?
 - A. Yes, sir.
 - Q. Pass on to 71.
- A. We saw the same and figured on the same as an extra. [1756—1667]
- Q. Are you quite sure that that item 71 does not belong under Schedule 9 of the specifications?
- A. I remember that we figured on turning the bearings in the stuffing-boxes on each end of the thrust shaft as an extra.
 - Q. And the balance?
 - A. The balance came under item No. 9.
 - Q. Proceed.
- A. No. 71 we saw and figured on the same as an extra. No. 73 the same. No. 74 we saw, but we did not figure on the same as an extra as we considered that it belonged to item No. 9.
 - Q. Proceed.
- A. We did not figure on item 75, though we saw all the shaft-bearings, as we considered that as belonging to item No. 9. Item No. 76 we saw, but did not figure on the same as it belongs to item No. 9 of the general specifications. The same with reference to item No. 77. Regarding No. 78, we saw the water-service, but I believe that we considered that that belonged properly to the assembling as specified

in item No. 9 of the general specifications. No. 79 reads: "Trued up I. W. P. crank-shaft by hand." That is no doubt a typewriting error, and should read "Trued up I. W. P. crank-pin by hand." We did not figure on that as an extra because we thought it belonged to item No. 9 of the general specifications. No. 80 we saw but considered that that belonged to item No. 9, therefore did not figure on the same as an extra. No. 81; we saw the horseshoes, but did not figure on the same as an extra because item No. 9 of the general specifications calls for thrust-rings to be refitted after shafting is lined up.

- Q. That does not help us, Mr. Heynemann. The item calls for the planing off on the sides of the horseshoes?
- A. Item 9 of the general specifications calls for these rings to be refitted after shafting is lined up. Now, when [1757—1668] the shafting is lined up, it means that if the horseshoes do not fit that they have got to be remetalled, therefore no extra charge should be made for the same.
 - Q. Remetalled? A. Or returned.
- Q. When you refer to rings, do you mean horseshoes? A. Yes, sir.
 - Q. Are they the same thing ?
- A. No, sir. Thrust-rings in this case, I suppose, are intended to mean thrust-collars. When the collars are turned it means necessarily that the horse-shoes do not fit.
 - Q. Proceed.
 - A. No. 82, we considered that No. 82 belonged to

item No. 9. We saw the same but did not figure on them as an extra except with reference to the handholes being enlarged, and the holes plugged. Those we did figure on as an extra.

Q. Proceed.

A. No. 83, we did not figure on though we saw them, believing them to be covered by item No. 9 of the general specifications. No. 84; we did not see the valves, but had them described to us and we did figure on the same as an extra. With reference to No. 85, we saw the items under No. 85 and figured on the same as an extra. The same with No. 86. The same with No. 87. With regard to No. 88 we saw the same, that is, we did not see the piston, but saw the follower as a spare triced up to one of the bulkheads in the engine-room department.

- Q. How did you figure on No. 88 $\mbox{\em P}$
- A. We saw the spare.
- Q. How did you figure on it?
- A. We measured it up.
- Q. Was it figured on as an extra?

A. Yes, sir, it was figured on as an extra; that is, the follower was figured on as an extra—no, let me see. One of [1758—1669] the bills, Schedule No. 3—

- Q. That schedule is withdrawn.
- A. Schedule 3, that is right. On the last item of the bill-head it calls for "Making one low-pressure follower."
- Q. What has that to do with item 88? Read item 88 again.

A. It calls for a low-pressure piston and follower faced off on ring packing bearing faces. With reference to 89—

Q. Let us clean up 88. Was it figured on as an extra?

A. I do not remember whether we figured on that as an extra or not.

(A recess was here taken until 2 P. M.) [1759—1670]

AFTERNOON SESSION.

LIONEL HEYNEMANN, direct examination resumed:

The WITNESS.—With reference to No. 88, I stated I did not remember whether we figured on that as an extra or not. I have since refreshed my memory and we did figure on the facing off of the ring packing bearing faces as an extra.

A. Yes, sir.

Mr. McCLANAHAN.—Q. Proceed.

A. No. 89; the item is not to be understood in the way it reads. We took it to mean that the spare low-pressure valve stem was lengthened out, and we considered that covered by item 2 of the general specifications.

Q. That is the compensation work?

A. The compensation work.

Q. Did you see that?

A. Yes, sir. Item 90; we saw that. We also saw the new nut for valve, and think that comes under the same compensation work as item 2 of the general specifications. The same with No. 91. We saw (Testimony of Lionel Heynemann.) that, but did not figure on as an extra.

- Q. For what reason?
- A. For the reason that it comes under item 2 of the general specifications. No. 92 we saw and figured on as an extra. No. 93 the same. No. 94 we saw, but considered that that was covered by the compensation work in item No. 5 of the general specifications. No. 95 we saw and figured on as an extra.
- Q. I call your attention to the 5th and 9th items of the specifications, and ask you if No. 95 does not come under one or both of those items?
- A. On reconsideration I would [1760—1671] like to correct my statement because I see in the general specifications item No. 5 states that the eccentric straps are to be lead to the satisfaction of owner's representative, and I think the distance pieces under item No. 95 will be covered by that specification.
 - Q. Was it figured on as an extra ?
- A. It was not figured on as an extra. No. 96. We did not see the neck bushing in the low-pressure valve chest, and did not figure on it as an extra for the reason that it belongs to compensation work in No. 2 of the general specifications. No. 97 we saw and figured on as an extra.
 - Q. Is not that the same as No. 96?
- A. No, sir. I don't think necessarily it would come under the same as item 96.
- Q. It does not come under the second item of the specifications as compensation?
 - A. No, sir, I don't think it does because—I don't

suppose there is any reason for stating why. No. 98; we saw this, and my impression is—and I am not sure whether we figured on that as an extra or not—my impression is we did not figure on it as an extra on account of Schedule No. 7 covering the same.

Mr. FRANK.—Q. Schedule 7 of the libel?

A. Of the libel. No. 99 we saw and figured on the same as an extra. No. 100 we saw and figured on as an extra. No. 101 we saw and figured on as an extra. No. 102 we saw and figured on as an extra. No. 103 we saw, but we did not figure on this work because we were informed that the United Engineering Works made use of the turning-engine for turning over the main engines, and in doing so broke the eccentric strap and were obliged to renew the same on their own account. No. 104; we think that that came partly under item No. 9 of the general [1761—1672] specifications, but we did figure on part of the item as an extra. No. 105 we saw, and I think we figured on the same as an extra.

Mr. McCLANAHAN.—Q. Would not 105 come, Mr. Heynemann—

- A. Under item 9, as assembling?
- Q. Yes. A. Yes, sir, I think it might.
- Q. The question is, whether you figured on it or whether you did not.
- A. I don't remember now whether we figured on that or not. No. 106; "Connected up all cofferdrains using new jointings, bolts, nuts and washers." We considered that this item, No. 106 is a duplication of the item No. 58, and the same pertains there-

(Testimony of Lionel Heynemann.) fore to 106 as pertains to 58.

- Q. What do you mean by that?
- A. I mean it is simply a duplication, and we did not figure on it as an extra on that account.
- Q. Did you figure on 58 as an extra? You stated that you figured on that as coming under No. 9, except the new joints.
- A. Yes, sir. Now, I say that this item No. 106, we considered a duplication of item 58, so that all we did figure on were the new joints. No. 107; we saw and figured on as an extra. No. 108; we saw the globe valve to drain on main steam line, and figured on same as an extra, but the other part of 108, "fitted new brass water service to guides," etc., we did not figure on as an extra on account of item No. 4 of the general specifications.
- Q. Mr. Heynemann, is 107, as it appears on the schedule before you, intelligently stated?
- A. It is not. It reads "Supplied and fitted 1½ brass nipple and lunk." That "lunk" we took to mean "Lunkenheimer" valve. No. 109 we saw and allowed for an extra. No. 110 [1762—1673] we saw and allowed for an extra. No. 111 we saw and allowed for an extra. No. 112 we saw and allowed for an extra. No. 113 we saw and allowed for an extra. No. 114 we saw and allowed for an extra, except the two ammonia gauges for which we could only find that one had been supplied.
 - Q. You allowed for one as an extra?
- A. We allowed for one as an extra. No. 115 we saw and allowed as an extra. No. 116 we saw and

allowed as an extra. No. 117; we did not see the seats and discs, but they were described to us and we allowed for them as an extra. No. 118 we saw and allowed as an extra. No. 119 we saw and allowed as an extra. No. 120 we saw and allowed as an extra. No. 121; I think we considered that that came under item No. 9 of the general specifications and therefore did not allow for it as an extra. No. 122 we saw. It does not read correctly. It should read, "Made 2 swivel eye-bolts strong backs," instead of "Strove backs." We saw them and allowed for them as an extra. No. 123a; we saw the holes and the eyebolts but we considered that they were used in assembling and came under item 9 of the general specifications, and we did not allow for them. No. 123b we saw and allowed for that as an extra. No. 124 we saw and allowed for that as an extra. No. 125; we could not see the asbestos tape under the cylinder heads and valve chest-cover, but we were supplied with sufficient information to be able to figure on them as an extra.

- Q. Could you see the diameter of the valve-chest?
- A. Yes, sir, of the cylinder-covers and the valve chest-covers.
 - Q. You say that is figured on as an extra?
- A. No, sir, I don't think that we did figure on these as an extra. That came under the assembling. [1763—1674]
 - Q. Under what item?
- A. Under item No. 9 of the general specifications. No. 126 we saw and allowed for the same as an extra.

No. 127 we did not see and did not allow for the same as an extra. No. 128 we saw, but did not allow for the same as an extra because we considered it covered by item No. 1 of the general specifications. No. 129 we saw, but did not allow for the same because we considered it covered by item No. 2 of the general specifications. The same with regard to No. 130. No. 131; we considered that this item was partly covered—I will state first that we saw these shoes and considered that the item was partly covered by item No. 4 of the general specifications, with the exception of the Challenge metal for which we allowed for an extra. No. 132; we saw these straps and considered that it was partly covered by item No. 5, but we did allow for the bronze that the low-pressure straps were made of. I believe we also allowed for some Challenge metal in that same item. No. 133 we saw, but did not allow for as we considered it belonged to item No. 5 of the general specifications. No. 134; we did not allow for the same because we considered that it was covered by the compensation work in item No. 6 of the general specifications.

Q. Did you see the item No. 134?

A. We could not see the interior of the cylinder, but we knew its diameter and it was sufficiently explained to us so that we were able to figure on the same. At the same time we did not allow for it.

Q. Mr. Heynemann, you have referred to compensation work in item No. 6. What is the compensation work there?

A. There is no compensation work. I simply ex-

(Testimony of Lionel Heynemann.)
pressed myself incorrectly. It was covered by item
No. 6. [1764—1675]

- Q. That is, item No. 134 was covered by item No. 6?
- A. Item No. 134 was covered by item No. 6 of the general specifications. No. 135, we did not allow for because—that is, we saw it but we did not allow for the same as it was compensation work for item No. 7. No. 136 we saw but did not allow for the same as we considered it covered by item No. 8.
 - Q. Of the original specifications?
- A. Of the original specifications. No. 137 we saw but we did not allow for the same because we considered that it was covered by item No. 9. No. 138 we saw but did not allow for the same because we considered that it was covered by item No. 10 of the general specifications. The same applies to item 139. We saw—that is, we did not see the sea-valves. We saw the outside of the valves called the bodies but the valves themselves of course we could not see.
 - Q. That item belongs to No. 10?
- A. That item belongs to No. 10, and we did not figure on the same as an extra. Item No. 140 "Made new valve stem and nut." We considered that that belonged also to item No. 10. That part of item 140, but the other part "Removed valve chamber of circulating pump and fitted plate under same to take old studs fitted," we considered as being covered by item No. 11 of the general specifications and therefore did not allow as an extra for the same.
 - Q. The evidence in this case shows that some of

these items that you have testified to as having seen were pointed out to you by Mr. Kinsman, but you have named more items as having been seen by you than Mr. Kinsman mentioned. Was there an inspection of the ship, and an inspection and view of some of these items that Mr. Kinsman did not point out to you? [1765—1676]

Mr. FRANK.—I object to that method of examining the witness as leading.

A. Yes, sir, there was. When we were on board the ship the first few times we could only see that part of the hull that was afloat, but we afterwards visited the vessel on the dock, and there we could see a good many parts of the ship that we had not seen before.

Mr. McCLANAHAN.—Q. In your testimony with reference to these several items on "Kinsman Exhibit No. 2," you have used the expression quite often "we have seen that item"; what, if anything, besides seeing the item did you do in making up your estimates?

A. In a number of cases where we thought it necessary we took sketches and sizes.

- Q. From your inspection of this work was it possible to know that it was repair work?
 - A. Yes, sir.
- Q. You have done a great deal of estimating, have you not, Mr. Heynemann, on repair work?
 - A. Yes, sir.
 - Q. For the purpose of bidding on the work?
 - A. Yes, sir.

Q. By comparison with your past experience in estimating the value of the work, repair work, what were the facilities open to you in making the estimate on this particular work?

A. I considered that in making an estimate for general repair work, and not knowing what you were going to strike, is an entirely different proposition from making an estimate after the work has been performed and when a list is given to you stating exactly what work was done.

Q. Which is the more accurate method of estimating?

A. Certainly the more accurate method of estimating is after the work has been done, and you are then presented with a full [1766—1677] list of this work. In estimating on repair work, very often you allow yourself a margin for safety, and for such work as you may be led into through necessity, and that you are not able to see, and for that reason the estimates vary very considerably on the same specifications.

- Q. Before the work is done?
- A. Before the work is done.
- Q. That statement is not exactly an answer to my question, though it is in part.

A. I would also further state that I don't remember having spent as much time on ever making any bid as I have in looking up this work, making an estimate of this repair work.

Q. I want to know what the facilities for doing so were as compared with your past history.

A. Well, the work was very accurately described; much more so than it would be if we were called on simply to make a bid, and we had much more time to go into the matter thoroughly than we would in the ordinary course of business in making a bid.

- Q. What part of this work was simply described to you? A. Described and shown to us.
- Q. You made an estimate on the value of this work, did you? A. Yes, sir.
- Q. What was the value of the extra work that you have testified to? A. \$6,080.50.
 - Q. \$6,080. A. Of the extra work?
 - Q. Yes. Did you place that figure in writing?
 - A. Yes, sir, I did.
 - Q. And signed the writing? A. Yes, sir.
 - Q. I will ask you if that is the writing (handing).
- A. Yes, sir, that is the writing. It is \$6,280.50, instead of [1767—1678] \$6,080.50; and we further made an allowance of \$2,000 on top of that on overtime for the extra work.
 - Q. What did you do that for?

A. We had no means of finding out when the orders for the extra work were given, and we considered that if these extra orders had been delayed in their giving out, that there might have been considerable overtime on the extra work. At the same time we realized that there might have been no extra time necessary. It would entirely depend on when the orders were given, but we thought we wanted to be very liberal, and we therefore allowed what we considered a very large item in the matter of over-

(Testimony of Lionel Heynemann.) time; and we to-day do not know, perhaps, whether we are not allowing more overtime than is really claimed.

- Q. What did you allow on the minor bills which are covered by schedules 2 to 10 of the libel?
 - A. We allowed \$4,827.07.
- Q. Referring you to the minor contracts, as shown by Schedule 4, I will ask you, which of those items you disallowed or modified in your estimate.
 - A. We allowed the first item.
 - Q. I am asking you what you did not allow.
- A. We did not allow the remetalling of the horse-shoes in the thrust, on one side only, to wit, \$146.88, because we considered that as they were obliged under item 9 of the general specifications to turn the rings of the thrust, that that necessarily implied the remetalling the horseshoes to make them fit. We further could see no evidence that the I. P. piston-rod had been ground. We saw the tool-marks of the turning in the rod, so we deducted from that item \$25. Otherwise we allowed the bill. [1768—1679]
- Q. I refer you to schedule 9 of the libel, and ask you which items of that schedule you did not put in your estimate.
- A. We did not allow the enlarging of the casing, \$60, nor the new top for breeching, and 2 new turnbuckle hangers, \$180.
 - Q. Why not?
- A. Because the offer of the United Engineering Works reads that they agreed to furnish a new stack and install the same complete.

Q. That is the offer as shown by the schedule?

A. That is the offer as shown by the schedule—no, that is not the offer as shown by the schedule. That schedule does not show that but we saw the letter in which that offer was made.

Q. I should like to see it myself, Mr. Heynemann. Where did you see it?

A. We saw a letter offering to furnish and install. Oh, yes, it does say here, "Remove old stack and install new one." It does say so here on the schedule. I did not notice it.

Q. Now about this letter that you refer to.

A. I think it must have been a copy of this because I remember seeing the word "install." I think it must have been the same thing—furnish and install.

Q. Under the heading of that billhead, Mr. Heynemann, give your testimony with reference to the two last items on the bill as to whether or not they were included in the nine hundred dollar charge.

A. Under this particular heading it says, "Remove old stack and install new one. Enlarge casing below umbrella. Make new top for breeching and 2 turnbuckle hangers."

Q. You are reading the generalization of the entire bill, the three items. Read the statement of what the \$900 was to cover. [1769—1680]

A. It reads, "To construction of new smokestack, removing old and installing new." We considered that the casing and the breeching came under that specification.

Q. In your estimate of the value of this work,

(Testimony of Lionel Heynemann.) how did you treat the original contract?

- A. We treated the original contract as existing.
- Q. I mean with reference to its value.
- A. We figured on the original contract in the value as given in the bid of the United Engineering Works, to wit, \$11,749, and we allowed that price for it.
- Q. In making your estimate did you or did you not allow as a credit to the Matson Navigation Company any sum or sums of money? A. We did.
 - Q. What were those credits?
- A. We allowed a credit for certain scrap that the United Engineering Works retained of \$535.76.
 - Q. Anything else?
- A. And we also deducted for the failure to remove the crank-shaft out of the ship, and do all the work that was specified to be done on that crank-shaft to the amount of \$1,398.25.
- Q. With the credits that you have just referred to, what, in your opinion, is the reasonable fair value of the work shown by "Kinsman Exhibit 2" and Schedules 2, 3, 4, as modified by your previous statements, 5, 6, 7, 8, 9, as modified by your previous statements, and 10?
 - A. Including the allowance?
 - Q. Yes. A. \$22,922.56.
- Q. Mr. Heynemann, are you able at this time to go into [1770—1681] details with reference to the values fixed by you on these different items?
 - A. No, sir, I am not.
- Q. Are you able to go into details with reference to any of the large amounts? A. No, sir.

- Q. Don't you know what you figured on for the gudgeon work?
 - A. I happen to remember that figure; yes.
 - Q. What is that?
 - A. It was either \$2,100 or \$2,200.
- Q. Did you make any allowance on that figure of \$2,100 or \$2,200 for extra dockage of the ship?
 - A. We did.
 - Q. How much allowance?
 - A. We made an allowance of about \$1,350.
- Q. What do you mean by your statement that this figure placed by you on the value of the work is the reasonable value of it?
- A. I mean by that that I consider that that item or that figure covers the value of the labor and material furnished. I will limit that statement by saying that we took the contract price for granted, \$11,749, and if that was too low a price I don't know that we could help it. [1771—1682]
- Q. You mean that that figure is one which in your estimation the work could be done at by any of the shops of this city? A. We think so.
 - Q. At a profit or a loss? A. At a profit.
- Q. Mr. Heynemann, in your opinion, would it have been a matter of difficulty to have kept separate account on the time, labor and material put into the extras furnished under the job as distinguished from the original contract? A. I do not think so.
- Q. Would it have been difficult to have kept separate the items of time, labor and material put into the extras as distinguished from the minor contracts

(Testimony of Lionel Heynemann.) or the specification work?

A. No. I think that it requires a good timekeeper to keep these items separate, but I do not think that a good timekeeper should find any difficulty.

Mr. McCLANAHAN.—I think that is all just now.

Cross-examination.

Mr. FRANK.—Q. Mr. Heynemann, is this paper that Mr. McClanahan has shown you the only piece of paper that you have retained of all of your work upon this estimate?

A. I do not know which paper you refer to.

Q. When you gave the figure of \$8,000 and something Mr. McClanahan showed you a paper and asked you whether that was not the figure.

A. Yes.

Q. \$6,000 and something. I ask you, is that the only paper? A. No, it is not.

Mr. FRANK.—I would like to look at that. Mr. McClanahan.

Mr. McCLANAHAN.—Look at what?

Mr. FRANK.—At the paper you showed the witness.

Mr. McCLANAHAN.—I do not think it is proper for you to see it. [1772—1683] But I have no objection.

Mr. FRANK.—Why isn't it proper?

Mr. McCLANAHAN.—You should have called for it at the time.

Mr. FRANK.—Oh, no.

Mr. McCLANAHAN.—I give you warning I am going to introduce it in evidence now that you have

(Testimony of Lionel Heynemann.) looked at it, if you do not.

Mr. FRANK.—Well, I think you would introduce any old thing in evidence on any excuse; that does not give you the right to introduce it, though.

Mr. McCLANAHAN.—It is a shame to designate that as "any old thing."

Mr. FRANK.—Q. When was this letter written, Mr. Heynemann, or when was it signed—the one dated there April 29, 1910?

- A. It was signed this morning.
- Q. Freshly written? A. Yes.
- Q. Why did you put that date on?

Mr. McCLANAHAN.—What date?

Mr. FRANK.—Q. April 29, 1910?

- A. Because we wrote a letter on that date, and there was an error in it, and so we copied the letter, leaving out the error.
 - Q. Where is the letter that you copied?
 - A. I could not tell you.
 - Q. Why couldn't you tell me?
 - A. Because I don't know where it is.
 - Q. When did you copy it?
- A. It was copied, as far as I know, this morning. I did not copy it at all.

Mr. FRANK.—Have you got the other letter, Mr. McClanahan?

Mr. McCLANAHAN.—I did not copy it, Mr. Frank.

Mr. FRANK.—Q. Do you know who has got the copy of it—do you know who did copy it?

A. Nô, I don't.

Q. That is very strange. [1773—1684]

Mr. McCLANAHAN.—Is that a question? If it is addressed to me, I will say this, that I will make the strange thing appear perfectly plain if counsel wants it.

Mr. FRANK.—Q. Did you read the original letter of April, 1910, and compare it with this before you signed this?

A. No, I did not.

- Q. You did not? A. No.
- Q. Do you know whether Mr. Gardner has the original letter?
 - A. I think very likely he has, though I don't know.
- Q. And Mr. Gardner brought this over here to-day for your signature; is that right?
- A. No. He did not bring it over here. I signed it in Mr. Gardner's office; he did not bring it here, I signed it in his office.
- Q. And then you saw the original letter in Mr. Gardner's office at the time you signed it?
 - A. No, I did not see it.
 - Q. You did not see it.
 - A. But I knew the contents of the original letter.
- Q. We will get the original letter and then we will be satisfied.

Mr. McCLANAHAN.—Let it appear that the paper which counsel was handed at his request by me is a copy of a letter dated April 16, 1910, addressed to the Matson Navigation Company and unsigned, and attached to it is a letter also addressed to the Matson Navigation Company dated April 29, 1910, and signed by Fred A. Gardner and L. Heynemann.

Mr. FRANK.—Q. Now, Mr. Heynemann, where are the data on which you made this figure?

- A. The data is a copy of what is called here—
- Q. (Intg.) No. You have a misunderstanding of what I am asking for. I mean the figures that you made which resulted in this estimate.
 - A. I have a copy of the figures. [1774—1685]
 - Q. The detail. A. Well, I have no details at all.
 - Q. Why have you no details?
- A. Because the way we made up this estimate will probably explain it to you why we could not really preserve the details; Mr. Gardner and myself went over the ship together and made sketches and took sizes, and then we met generally in the evening in his office, and we would go through item by item, and he would figure up one item and I would figure up the same item, and then we would agree on a compromise figure between us two; sometimes I would be higher and sometimes he would be; and in that way we simply enumerated opposite the item No. 1 our figure; so in that way the bid was itemized.
- Q. What did you do with these figures? Don't you keep a figuring book? All engineers keep a figuring book, don't they? A. No.
 - Q. You did not keep any figuring book?
 - A. No. We figured on loose paper.
 - Q. What did you do with the figures afterwards?
 - A. I have got that.
 - Q. Well, that is what I want, Mr. Heynemann.
- A. I have got the estimate, item by item, if that is what you want.

- Q. No, I want the figures by which you arrived at your itemized estimate.
- A. All that I can give you for that are these papers that we have read over and the sketches and this itemized list.
 - Q. You have not the other figures? A. No, sir.
 - Q. Well, let us see the itemized list?
 - A. I have not got it here.
 - Q. Where is it?
 - A. It is either home or in my office.
 - Q. And your sketches?
- A. I can gather them together, and I think I can present them to you on Monday.
- Q. Is there no way of getting that itemized list this afternoon? [1775—1686]
 - A. Well, if it is in the office, I might get it.
 - Q. Well, how far is your office from here?
 - A. It is on Folsom Street.
- Q. Take you about half an hour to go down and get it? A. If it is there; yes.
- Q. Well, I am willing to wait your return with that list this afternoon, if you can go and get it.
- Mr. McCLANAHAN.—I am not willing to wait. The witness offers to produce it on Monday morning.

Mr. FRANK.—I would like to see it to-day.

Mr. McCLANAHAN.—It is now 23 minutes of 3; we are not going to sit here very much longer; you are not going to finish his cross-examination.

Mr. FRANK.—No. I want to get as far along with it as possible.

Mr. McCLANAHAN.—Go ahead with your cross-examination.

Mr. FRANK.—Oh, no.

Mr. McCLANAHAN.—I will not consent to an adjournment of this hearing for the purpose required by counsel.

Mr. FRANK.—Q. Will you get the material? I am not asking Mr. McClanahan for his consent. I do not know as you control it one way or the other.

Mr. McCLANAHAN.—You will see.

Mr. FRANK.—Q. Will you get this now?

A. Well, it places me in an embarrassing position.

Mr. McCLANAHAN.—Q. Don't mind me, Mr. Heynemann.

A. I don't know as I have a right to.

Mr. McCLANAHAN.—You have a perfect right to.

Mr. FRANK.—Q. Why haven't you a right to?

A. Because I am acting for one side and I feel like obeying the instructions of that side. [1776—1687]

Q. Yes; that has been your position and disposition throughout this investigation, hasn't it?

A. Not at all. On the contrary, I can state to you that when this case was offered to me I did not want to take it for the reason that I stated at the time, I felt more friendly towards the Messrs. Gray and Christy than I did towards the Matson Navigation Company.

- Q. But you have taken it, haven't you?
- A. I have taken it.
- Q. For a fee and a consideration, have you not?

- A. Yes. And also let me tell you—
- Q. I do not care for that.
- A. Pardon me. Let me finish my sentence.
- Q. No, I do not care for it.

Mr. McCLANAHAN.—I object to your interrupting the witness.

Mr. FRANK.—He has no right to go on unless in response to a question, and that is not responsive to a question.

Q. Now, I am asking you about the fee; what is the amount of the fee?

Mr. McCLANAHAN.—I object to that and instruct you not to answer.

A. Besides, I don't know.

Mr. FRANK.—Q. You do not know? A. No.

- Q. Why don't you know?
- A. Because we made no arrangements.
- Q. You made no arrangements? A. No.
- Q. You left that fee until after you are done testifying?
- A. Yes. I have received some part of the fee already.
 - Q. Then how much have you received on account?

Mr. McCLANAHAN.—I object to that and instruct the witness not to answer. I object to the question as immaterial, irrelevant and incompetent. [1777—1688]

Mr. FRANK.—Q. You refuse to answer?

A. I refuse to answer.

Mr. FRANK.—Just make a memorandum; that is a matter that will be referred to the Court to compel

(Testimony of Lionel Heynemann.) the witness to answer.

The WITNESS.—Now, may I complete my sentence?

Mr. FRANK.—Q. No, sir; you are not here to volunteer things.

A. I thought it was in answer to your question.

Q. It is not.

Mr. McCLANAHAN.—How do you know, Mr. Frank, when you have not heard it?

Mr. FRANK.—I have not asked him any question that would be a foundation of the matter he was talking about when I interrupted him.

Mr. McCLANAHAN.—Well, I have to object to counsel's declining to listening to the answer of the witness, and refer that to the Court for determination.

Mr. FRANK.—I think you had better.

Q. Coming back. You have declined to furnish those figures this afternoon, have you? Is that the fact? A. Yes; under instructions of counsel.

Q. Under instructions of counsel? A. Yes.

Mr. McCLANAHAN.—Let it appear perfectly clear that the counsel objects to the interruption of this hearing for that purpose, when the witness has said that he would produce the figures on Monday morning, and does not know even where they are with certainty.

Mr. FRANK.—Q. You are fairly well certain those are in your office, aren't you, Mr. Heynemann?

A. Yes—you mean those referring to the figures that I have given?

- Q. Yes, the figures that we are talking about.
- A. Yes.
- Q. And those sketches and other data?
- A. Well, then, I don't [1778—1689] quite understand the question.
- Q. What is that? Any other data that you have in the matter?
 - A. What is the question, I want to know.
- Q. You know fairly well, are fairly well satisfied, that those are in your office?
- A. Oh, those are in my office. I thought you said "offers." I didn't know you said "office."
 - Q. What is your answer now?
- A. I am not fairly well satisfied that they are in my office; the chances are even they are in one place or the other; but I am sure that I can furnish them on Monday.
 - Q. You are sure you can furnish them on Monday?
 - A. Yes.
- Q. By the way, referring to this letter, a copy of a letter of April 16, 1910, the yellow sheet, whose signature is attached to that?
- A. I don't know what that letter is. If you will permit me to look at it.
 - Q. The letter referred to in your reply.
- A. I think that this letter, a copy of this letter, was signed by Messrs. McClanahan and Derby.
- Q. I will also ask you at the same time to produce the original letter, now in the possession of Mr. Gardner, of which this letter of yours of April 29, 1910, is said to be taken from.

Mr. McCLANAHAN.—The letter of Mr. Heynemann?

Mr. FRANK.—Mr. Heynemann and Mr. Gardner, yes.

Mr. McCLANAHAN.—Mr. Frank, you want the original of the yellow sheet letter?

Mr. FRANK.—No, I don't.

Mr. McCLANAHAN.—What do you want?

Mr. FRANK.—I want the letter of April 29, 1910, signed by Mr. [1779—1690] Gardner and Mr. Heynemann, which the witness has stated this was rewritten from this morning.

Mr. McCLANAHAN.—Q. Can you produce that, Mr. Heyneman?

A. I don't know that I can produce it; it was a letter that was written to McClanahan and Derby—oh, no; it was a letter written to the Matson Navigation Company. I could not produce it.

Mr. FRANK.—Q. Why couldn't you? Isn't Mr. Gardner's possession and your possession a joint possession of those papers?

Mr. McCLANAHAN.—I object to that question as calling for a conclusion of law from the witness.

Mr. FRANK.—Q. Isn't that the fact?

A. I don't know whether I can answer that question that way. This is a letter written to the Matson Navigation Company, and I do not know that I would have any right to produce the letter, even if I could, written to the Matson Navigation Company.

Q. Is that the ground that you refuse to purchase the original? A. No. The ground is—

Mr. McCLANAHAN.—Mr. Frank, we can cut this short; if that letter is in existence we will produce it.

Mr. FRANK.—It must be in existence; it was in existence this morning.

Mr. McCLANAHAN.—No one has said it was in existence this morning.

The WITNESS.—I have not seen it.

Mr. FRANK.—The witness has testified that this was copied from it this morning.

The WITNESS.—I do not know that it was, but I believe it was.

Mr. FRANK.—I demand the production of that letter on Monday.

Mr. McCLANAHAN.—It is not necessary to make a demand, as I have consented to produce it if it is possible.

(An adjournment was here taken until Monday, November 6, 1911, at 10 A. M.) [1780—1691]

Monday, November 6th, 1911.

LIONEL HEYNEMANN, recalled.

Mr. McCLANAHAN.—Mr. Heynemann, will you leave the room for a minute or two? I should like to have a talk with Mr. Frank out of your presence. (Whereupon the witness left the room.) Mr. Frank, I think you are chasing rainbows in this matter of the investigation of the change in the letter, and I want to, if possible, put you right on that without encumbering the record. For that purpose I want to submit to you frankly, and in the right spirit, all the data on which you may determine whether you think it is right to put it into the record, because if

we once enter into it, it is going to extend the record to great length. Do you understand me?

Mr. FRANK.—I understand you. (After a colloquy between counsel and the examination of papers.) I think I will have to pursue the examination.

Cross-examination Resumed.

Mr. FRANK.—Q. Mr. Heynemann, have you brought with you this morning the papers that were asked for on Saturday?

A. Yes, sir. (Producing.)

Mr. McCLANAHAN.—Let the record show that the witness produces the original letter of April 29th, 1910, addressed to the Matson Navigation Company and signed Fred A. Gardner and L. Heynemann; and the witness produces four type-written sheets of paper which contain the itemization of price agreed upon between Mr. Heynemann and Mr. Gardner.

Mr. FRANK.—I object to your placing any interpretation [1781—1692] on these papers.

Mr. McCLANAHAN.—That is just what you called for. I am not interpreting but identifying. Also the witness produces—

Mr. FRANK.—One moment. The price which you say was agreed upon between Mr. Gardner and Mr. Heynemann are four typewritten sheets dated April 29th, 1910. Go on now.

Mr. McCLANAHAN.— —entitled at the top "agreed between Mr. Gardner and L. H." Did you ask for the sketch-book?

Mr. FRANK.—I asked for everything.

Mr. McCLANAHAN.—We produce the sketch-book referred to (handing).

Mr. FRANK.—I do not see very well how I can do anything with this until I have an opportunity to go through this 149-page book, to do it intelligently, and I suggest for that purpose a temporary adjournment.

Mr. McCLANAHAN.—You cannot take that book with you, Mr. Frank, unless you introduce it in evidence.

Mr. FRANK.—Is that the ultimatum?

Mr. McCLANAHAN.—That is the ultimatum. If you introduce it in evidence you can take it.

Mr. FRANK.—I cannot introduce anything in evidence until I know what it is.

Mr. McCLANAHAN.—Take your time; I am not complaining.

Mr. FRANK.—Allow us to adjourn with it to the other room where we can confer on the subject. You are not afraid that we are going to alter it?

Mr. McCLANAHAN.—It is not right that you should take our private records away.

Mr. FRANK.—They are instruments of probable evidence in [1782—1693] this case. We have a perfect right to examine them privately before we are called upon to cross-examine this witness. You understand very well, and it is a matter that you will appreciate, that there is a great deal of very technical detail on which to examine, and I will be utterly helpless without the advice of somebody who understands those subjects. You will understand also that I could not confer in your presence for that purpose.

Mr. McCLANAHAN.—Mr. Frank, I do not think there should be any extended delay of this hearing for that purpose. I am willing to give you a reasonable time to look over the sketch-book, but to adjourn this hearing for that purpose I do not think is necessary at all. How long do you want to look it over?

Mr. FRANK.—I cannot tell until I look into it. I want anyhow, preliminarily, until the afternoon to see what is in this, and then I will probably be advised as to the necessity of any further examination of it.

Mr. McCLANAHAN.—I cannot consent to any adjournment to this afternoon. I will give you an hour to look into it privately.

Mr. FRANK.—I will take what the gods have given me so far, and if it is not sufficient we will have to force the gods to give us some more. Can we take it upstairs?

Mr. McCLANAHAN.—What are you taking?

Mr. FRANK.—I am taking your alleged sketches and your detail.

Mr. McCLANAHAN.—Will you agree to return them in an hour?

Mr. FRANK.—I will come back in an hour and fight it out with you. [1783—1694]

Mr. McCLANAHAN.—And bring the sketches and what else you take?

Mr. FRANK.—Whatever I have got I will bring back with me.

Mr. McCLANAHAN.—You can take an hour, with the express understanding that they are to be returned at a quarter to 12; it is now a quarter to 11.

Mr. FRANK.—And not keep them over the recess?

Mr. McCLANAHAN.—I do not think it is necessary. Let me suggest—

Mr. FRANK.—I do not think you are the judge, Mr. McClanahan, of what is necessary for my case.

Mr. McCLANAHAN.—Those papers are in my custody.

Mr. FRANK.—I understand, but you are expressing your opinion of what is necessary. I say, you are not the judge of what is necessary for my case. I am the judge of that.

Mr. McCLANAHAN.—I am going to expedite this hearing if I possibly can.

Mr. FRANK.—You will try and railroad it through if you possibly can, but you will not be able to do it.

Mr. McCLANAHAN.—I have been very lenient, Mr. Frank, and given you abundance of time that the Court would not allow.

Mr. FRANK.—I do not agree with you.

Mr. McCLANAHAN.—I will make another suggestion, that you proceed now with the cross-examination of Mr. Heynemann, and I will allow you the noon recess for the examination of the sketches.

Mr. FRANK.—I cannot examine him without knowing what is in these schedules. [1784—1695]

Mr. McCLANAHAN.—You mean that your examination is going to be limited entirely to those schedules?

Mr. FRANK.—No, it is not, but it probably will be based on that; after I have looked at the sketches,

I might find there are a good many questions that I might not have asked.

Mr. McCLANAHAN.—I will give you an hour and will expect their return at that time.

Mr. FRANK.—I am very thankful to you.

Mr. McCLANAHAN.—You take them away with the express understanding that you will return them in an hour?

Mr. FRANK.—Yes, I will give you my application or make it to the Court if I need to make it.

(Whereupon counsel for the libelant retired and at 10:53 o'clock the following took place:)

Mr. McCLANAHAN.—I should like to have the record appear that at 7 minutes to 12 a messenger from Mr. Frank's office returns the sketch-book and the itemized and priced four-sheet document which he took away. I suppose that means an adjournment of the hearing until 2 o'clock. I protest against this treatment of the respective parties engaged in this hearing. Mr. Reporter, let the record show that Mr. Heynemann, the witness, is here and that there is no appearance upon the part of the libelant. I suppose we will have to adourn until 2 o'clock in the hope that Mr. Frank will appear at that time.

(A recess was here taken until 2 P. M.) [1785—1696]

AFTERNOON SESSION.

LIONEL HEYNEMANN, cross-examination resumed:

Mr. FRANK.-Q. Now, Mr. Heynemann, do I

understand that these two documents which you presented this morning, one marked "Steamer 'Hilonian,' 1910," and the other, "The items of charges," marked "Agreed between Mr. Gardner and L. H., April 29th, 1910," are all the data which you used in making up this estimate?

A. No, sir, it is not.

Q. What other data did you use?

Mr. McCLANAHAN.—I object to the question as already having been gone into, and it is repetition and encumbering the record. It has been gone into three times.

Mr. FRANK.—Q. Go on, Mr. Heynemann.

A. We had copies of the general specifications, copies of the bill, billheads, copies of the different schedules as we call them, that is, the extra bills, and the ship itself.

Q. That is all?

A. That is all that I can remember.

Q. Now, is this paper, the one called "Agreed between Mr. Gardner and L. H.," an original?

A. What do you call an original?

Q. Well, this paper appears, apparently, to have been newly typewritten. Was this done to-day or yesterday or the day before?

A. That was done on the date of that paper. It was done on April the 29th, if that is the date.

Mr. McCLANAHAN.—Q. 1910? A. 1910.

Mr. FRANK.—Q. This particular paper?

A. That particular paper.

Q. And done from what?

- A. Done from a dictation to my typewriter. [1786—1697]
 - Q. You must have had something to dictate from?
 - A. I did.
 - Q. What was it?
- A. I had the original papers on which we figured, and we had put down on a piece of paper the items just as they appear there; No. 1, this item; No. 2, that, etc., and I remember I had that paper, just a lead-pencil memorandum; No. 1 with the prices opposite as shown on this list.
 - Q. What has become of that paper?
- A. I could not tell you. It was just an exact duplicate of what you see before you.
- Q. Now, do I understand that the numbers on this "Agreed between Mr. Gardner and L. H." on the left-hand side, are numbers to correspond with the 140 odd numbers in "Respondent Kinsman Exhibit No. 2"? A. Yes, sir.
- Q. Now, referring to your "Steamship 'Holonian,' 1910," when was the sketch made on the last page there? A. Quite recently.
 - Q. What do you mean by "quite recently"?
 - A. I think it was about September the 21st or 22d.
 - Q. Of this year? A. Of this year, 1911.
 - Q. How about sketch 147?
- A. That sketch was made long before—long before.
 - Q. You don't remember the date? A. No, sir. Mr. McCLANAHAN.—Q. Long before what?
 - A. Before the date just given.

Mr. FRANK.—Q. Sketch 145?

- A. That was made long before the date just given.
- Q. Where is the page referred to on the second page as "Estimate page 149"?
 - A. I could not tell you.
 - Q. It does not appear there, does it?
 - A. No, sir, it does not.
- Q. How do you account for its absence, Mr. Heynemann?
 - A. I cannot account for it at all. [1787—1698]
- Q. Didn't you put this together at the time that it was made up? A. No, sir.
 - Q. When did you put it together?
 - A. I did not put it together at all.
 - Q. Who did put it together?
 - A. I think Mr. Gardner's typewriter.
 - Q. Mr. Gardner's typewriter did?
 - A. Yes, sir, I believe that she was the culprit.
- Q. Have you any recollection of what that estimate was? A. No, sir, I have not.
- Q. Is this the only data that either you or Mr. Gardner had?
- A. I don't know what you mean by "the only data." I have stated what data we had.
- Q. What I mean to say is, that if Mr. Gardner did not have any other or different data, he acted on this same data.

 A. On this same data.
- Q. And you have no recollection of what that estimate on page 149 is?
 - A. If you ask me in regard to the amount—
 - Q. No, I am asking for the detail? A. No, sir.

Q. I show you page 65, and ask you if that also has not just been prepared.

Mr. McCLANAHAN.—I object to the question upon the ground that it carries the inference that the witness has testified that something else has just been prepared.

Mr. FRANK.—Q. Go on Mr. Heynemann.

A. What is the question?

Q. Read it, Mr. Reporter.

(The Reporter reads the question.)

A. I think that sketch is quite recent.

Q. How recent?

A. Possibly within a week or so; a week or 10 days, we will say. [1788—1699]

Q. Would not that be the same of the pages containing 66, 67, 68, 69, 70 and 71?

A. Just let me see. (After examination.) No, that was only the original sketches. That is the original—

Mr. McCLANAHAN.—Q. You must identify these as you turn them over.

A. Pardon me. The sketch under No. 68 was made long ago. The sketch 70 was made long ago. 71 long ago. If you want, Mr. Frank, I will go right through the whole thing and tell you just when those sketches were made. There are a few recent ones.

Q. There are a few recent ones besides those I have pointed out?

A. I don't think so. I think the only recent one is the one we saw on the drydock, the air-pump floating dock that Mr. Kinsman explained to me one day,

and possibly there may be one or two more of that kind, but that is all. Otherwise they were all made at more or less the same time.

- Q. Then these sketches that have been put in recently, and the detail contained on them, were not in your possession at the time you made the figures which you have handed me here?
 - A. Those sketches were not in our possession.
- Q. Now, taking the first No. 1 there, for which you make an allowance of \$800— A. Yes, sir.
- Q. Will you kindly show us how that \$800 is arrived at? A. I could not show it to you now.
 - Q. Why could you not show it to me now?
- A. Because I would want to have a quiet session all to myself to figure that out.
- Q. We will give you a quiet session all to yourself long enough to figure that out if necessary.
 - A. I refuse to do it. [1789—1700]
- Mr. McCLANAHAN.—I object to the question upon the ground that it is asking something unreasonable of the witness.
 - Mr. FRANK.—Q. Why do you refuse to do it?
 - A. Because I am very liable to make a mistake.
- Q. You mean to say that you could not refigure it the same as you did before?
- A. I mean to say that I do not propose to figure out a matter of that kind at a court session. Now, whether I would arrive—I beg pardon—
 - Q. Finish your answer.
- A. I will repeat that I would not think it right to ask me to figure this out at a court session.

- Q. You were called into this case, were you not, Mr. Heynemann, according to your memorandum there, on the 16th of April, weren't you?
 - A. That memorandum is correct.
 - Q. The 16th of April?
- A. I don't remember whether that is the exact date.
- Q. And on the 29th of April following you handed in your report in the full detail?
 - A. I think that is the date.
- Q. And in the interim you had made all your examinations and calculations and figures, had you not?
 - A. No, sir.
 - Q. You had not? A. No, sir.
- Q. What am I to understand by that. Did you not make it during the time between when you were called in to the case and the time you handed in your report?
- A. You mean all the calculations? We have made quite a number since then.
- Q. You made calculations since you handed in your report? A. Yes, sir.
 - Q. For what purpose?
 - A. For the purpose of corroboration largely.
- Q. You have not changed any of your figures, have you? A. No, sir. [1790—1701]
- Q. So that all of the calculations upon which those figures were based were made between the date you were called in and the date of the report?
 - A. Yes, sir.

- Q. Do you remember the date when you first visited the ship?
 - A. I don't remember it, no, but I could look it up.
 - Q. Let us have it.
- A. I think it was—I don't find it here, but it was probably a day or two after I was called into the case.
 - Q. That is about April 17th or April 18th?
 - A. Yes, sir, somewhere about that date.

Mr. FRANK.—I object to counsel pointing anything out to the witness.

Mr. McCLANAHAN.—I beg counsel's pardon. I was pointing nothing out to the witness. I was examining this paper and happened to have my finger there when the witness looked at it. I am not in the habit, Mr. Frank, of doing what your statement seems to imply.

Mr. FRANK.—If I have made a mistake I am sorry, but it looks very much like it.

The WITNESS.—I will say right here, Mr. Frank, that my memory for dates is not very good. The first visit I made was a few days after I was called into the case.

- Q. At that time you and Mr. Gardner went together? A. Yes, sir.
 - Q. And remained how long ?
 - A. I could not tell you.
 - Q. Have you any idea at all?
 - A. Yes, sir, we remained quite a long while, hours.
 - Q. About how many hours?
 - A. I could not tell you.
 - Q. You have not any idea at all?

- A. No, sir, it might be 7 hours or 8 hours; it might be 9 hours; we remained there a [1791—1702] great many hours.
 - Q. Then your limit, say, is 9 hours?
 - A. I do not limit myself.
 - Q. You would not limit yourself? A. No, sir.
 - Q. Was it 10 hours? A. I don't know.
 - Q. You don't know? A. No, sir.
 - Q. Was it 12 hours? A. I don't know.
 - Q. Was it 8 hours? A. I could not tell you.
- Q. Can you tell anywhere between the limit of 8 and 12%
- A. I don't think you should put it that way, Mr. Frank. I tell you I stayed there quite a number of hours. It may have been 8; it may have been 9; it may have been 10. I don't think it was more than 9 hours.
 - Q. That is what we were after.
 - A. I don't think it was.
- Q. And remained not more than 9 hours? Do you remember what parts of the ship you visited at that time? A. Yes, sir, fairly well.
 - Q. What was it?
- A. I think on the very first visit we were pretty well over the ship as far as this particular work went.
 - Q. When did you visit her again?
 - A. I believe it was on next day after that.
 - Q. The next day? A. Yes, sir.
 - Q. How long did you remain then?
- A. I would have to make the same statement with regard to that visit as I did with regard to the first.

- Q. Make your statement.
- A. I don't remember how long it was.
- Q. Give us the best recollection you have of it.
- A. The best recollection is that it was between 6 and 8 hours.
- Q. And when did you visit her again? [1792—1703]
- A. I think the third time that I visited her was on Sunday.
 - Q. About what date?
- A. I don't remember. It was sometime in April, towards the end of April; that is, I should say about the 21st or 22d of April. Somewhere along there.
 - Q. How long did you stay then?
 - A. I think I stayed there possibly 6 or 7 hours.
 - Q. That was when you were alone I understand?
 - A. I was alone on that Sunday.
- Q. And the other two visits Mr. Gardner was with you? A. Yes, sir.
 - Q. When did you visit her again?
- A. My memory is not clear on that point. I think there was a little space then—quite a little space.
 - Q. What do you mean by "quite a little space"?
 - A. Quite a little lapse of time between the time I—
 - Q. What do you mean, months?
- A. No, sir, between the time I visited her again—I don't remember, Mr. Frank.
 - Q. Was it days or weeks or months?
- A. I could not tell you. I am sure it was not months and I am sure it was not weeks. I think the next visit was quite shortly afterwards, but the num-

(Testimony of Lionel Heynemann.) ber of days I could not tell.

- Q. Was it within a week?
- A. I could not tell you that.
- Q. You don't know whether it was within a week or not? A. No, sir, I could not tell you.
 - Q. May it have been beyond a week after that?
 - A. It may possibly.

Mr. McCLANAHAN.—I suggest, Mr. Frank, that the sketch-book contains a statement of the visits to the "Hilonian." The witness might refresh his memory from it. [1793—1704]

The WITNESS.—I don't see why I should be tested in that way.

Mr. FRANK.—I do not need your aid at present, Mr. McClanahan. When I do I will call on you for it.

Mr. McCLANAHAN.—You were after the dates, I thought, from your examination. The witness may refresh his memory from it and give them to you.

Mr. FRANK.—What is the last answer of the witness, Mr. Reporter?

(The Reporter reads the answer.)

- Q. Was it during that particular stay of the "Hilonian" in port?
- A. Yes, sir, it must have been. I did not visit her in any other port. It was during her particular stay here in port.
- Q. I do not mean that you visited her in any other port; I want to get at whether it was on her return trip, the next visit.
 - A. I don't remember whether we visited her on

(Testimony of Lionel Heynemann.) her return trip, but I think we did.

- Q. Was that the next visit?
- A. I could not tell you that.
- Q. You do not know then whether or not you visited her a fourth time before April 29th of that year? A. No, sir, I could not tell you.
 - Q. You could not tell me that? A. No, sir.
- Q. Now, what did you do after the visits on these occasions? Did you repair to Mr. Gardner's office to make figures?
- A. Yes, sir, I went to Mr. Gardner's office. My office is on Folsom Street, and his is here in this building and more centrally located. I generally met Mr. Gardner in the evening and we figured the thing right up with the matter fresh in our minds, generally on the days that we had been on the ship, sometimes not. [1794—1705]
- Q. That is, on the same day you had been on the ship, that evening you figured up and arrived at the results which you have indicated on this paper "Agreed between Mr. Gardner and L. H."?
- A. I do not say that as a positive fact that it was necessarily that evening, but it was right within that same time that we made these figures together.
- Q. Now, Mr. Heynemann, I will again have to ask you to give me some of the details that made up that \$800 which you say you allowed for these tank-tops, and for that purpose that you may take the data that you then had before you, and use it.
- Mr. McCLANAHAN.—I object to that upon the ground that it is asking something unreasonable of

the witness, and on the ground that the witness has already given his reasons for refusing to answer it, and this is simply encumbering the record.

Mr. FRANK.—That is a very good legal objection, Mr. McClanahan, but if this witness made the figures once he can make them again, and if he cannot make them again we have very grave doubts whether he made them the first time. We have a right to ask him the situation. He has all the data before him and we insist on him giving us the details of how he figured that as a matter of cross-examination.

- A. In answering that I will state that it would be so difficult for me to do it that I do not propose to do it.
 - Q. You do not propose to do it? A. No, sir.
- Q. Let me ask you, Mr. Heynemann, that item refers to the tank-tops, does it not? A. Yes, sir.
- Q. In making up that estimate how many lbs. of iron did you allow for? A. I could not tell you. [1795—1706]
 - Q. You could not tell me ? A. No, sir.
- Q. Where did you get your weight of iron that you allowed for?
- A. From the measurements that we took on the ship.
- Q. Very well; are those the measurements that you have here indicated in your diagram, page 145?
- A. Yes, sir, those are the measurements of what we saw.
- Q. Taking those measurements now, kindly figure out how many lbs. of iron there were on that surface

(Testimony of Lionel Heynemann.) shown by those measurements.

A. I can give you that this way, that this material, as near as I can remember, was a quarter inch material and that weighed 11 lbs. to the foot as far as the surface is concerned. These plates are all more or less what are called sketch plates. They are not full plates. This sketch does not represent the actual condition that would be necessary to take into account when you figure on a proposition of this kind. You would have to take a plate and allow for a considerable waste before you could figure on it. This sketch represents a mere skeleton. For me to undertake to figure on a proposition of that kind before you would simply mean that I would be making one mistake after the other, because while that appears to be complete to you it is not complete.

Q. Very well. That is the date you had before you when you made the original figures? A. Yes, sir.

Q. Why cannot you make the same allowances you did before in order to make the complete figure that you did before?

A. I could, but as I have already stated, I don't think it right to ask it; therefore I refuse to do it.

Mr. FRANK.—I think we had better adjourn this meeting until I can get a ruling of the Court upon this subject. [1796—1707] I am going to find out whether or not on cross-examination I have a right to the details by which these amounts are arrived at.

Mr. McCLANAHAN.—You shall not adjourn this hearing with my consent. If you do it will be as far as you leave the room and prevent the hearing from

going on. We shall proceed with this hearing, if I have got anything to say about it. You will have to leave the room and stop the hearing in that way.

Mr. FRANK.—I am sure I do not understand, Mr. McClanahan, the lordly manner in which you are treating this matter. The law provides for certain things which I am entitled to, and I do not like your manner one bit. There are also other ways of stating them different from what you have stated, between gentlemen.

Mr. McCLANAHAN.—I am sorry that I have displeased the gentleman; it is my way. I am perfectly well satisfied with it. The record will show whether I have acted as a gentleman or otherwise, or who has acted as a gentleman or otherwise. The sole objection that I have at this time to a reference of this matter is that the matter has dragged on interminably, concession after concession being made to counsel that has resulted in the drawing out of this case. My time has expired—the limit placed on it by the Court—and I am particularly anxious to finish the case.

Mr. FRANK.—Yes, and—

Mr. McCLANAHAN.——and for counsel to adjourn this hearing to refer that question to the Court is unreasonable, in my opinion. You can go on and cross-examine the witness, and at some later date the matter can perhaps be referred to the [1797—1708] Court. There is no reason why this examination should be interrupted now Mr. Frank.

Mr. FRANK.—It is a very important point in the

cross-examination of this witness. It is neither unreasonable nor improper, and now is the time to determine it as the basis of a further cross-examination that is to follow. The statement about the matter being lengthened out by reason of concessions to me I challenge.

Mr. McCLANAHAN.—The record will speak for itself.

Mr. FRANK.—Yes, the record will speak for itself. I will go on with this witness as best I can if you insist upon that. I do not think you gain anything by it, either in time or in shortening the record.

Mr. McCLANAHAN.—I think that is the proper course, Mr. Frank, under the circumstances.

Mr. FRANK.—We will see. Go back now, Mr. Bennett, to the examination on the question of this material, and we will make up our connections.

(The Reporter reads from his notes.)

Q. Do you refuse to make any calculation on that subject at all at this time?

A. I have several times made calculations in open court, and I have seen other engineers do the same thing, and their mind is not arranged, or so arranged that they can discard the fact that they are being watched and observed, and there is somebody on top of them to see and watch the results that accrue from their work; and it confuses the engineer and is very liable to cause mistakes.

Q. Is this, then, so delicate an operation, Mr. Heynemann, that the mere fact that somebody is

(Testimony of Lionel Heynemann.) present would cause you to make [1798—1709] a material error in your calculations?

A. It might, not because it is at all a delicate matter but I think I can explain it best in this way. Supposing I were to arrive at a result that there are contained in the surface shown here approximately 22 times 8. That would be a certain amount of square feet. Multiply that by 11 lbs. That is not a delicate operation at all. But I might make a mistake in multiplying common figures.

- Q. That is all you fear?
- A. That is all that I fear.
- Q. That could very easily be corrected at the time.
- A. It could not, Mr. Frank, because one operation succeeds the other, and the final result I might arrive at might be wrong for the reason I may have made some mistake.
 - Q. Mistake in multiplication?
- A. Either in multiplication or addition, some of the elementary processes necessary to arrive at this estimate.
- Q. Is that the nature of all the difficulty in the way of making a calculation here and in our presence?

 A. No, sir, that is not the only one.
 - Q. What is the other?
- A. Another difficulty is to get the thing clearly in your mind, what is to be figured on, and while you can do that when your mind is at rest and at peace you cannot do it when you are under stress. Your mind is on something else. For that reason I do not care to do it.

- Q. Those are all the reasons, are they?
- A. The main reasons.
- Q. The main reasons? A. Yes, sir.
- Q. And you cannot tell me, now how much material went into that tank-top.
- A. I did not say I could not tell. I said I could tell.
 - Q. Let us have it.
- A. I have given the reason why I do not want to tell. [1799—1710]
 - Q. I do not think those are valid reasons.
 - A. I do.
- Q. I think you are compelled to answer the question.
- A. That is the reason I do not care to make the statement.
- Q. Will you tell us how much you allow a lb. for that material?
- A. I allowed for the tank-top, as near as I can remember, 11 lbs. to the square foot.
 - Q. I mean how much price per lb.?
- A. We took the price from the bills; I think 4 cents a lb.
 - Q. You took the price from our own bills?
 - A. From your own bills; 4 cents, I think it was.
- Q. After you got the tank-top—the area of the tank-top, what other details of that tank-top was it that you added in to that calculation?
 - A. The work below the tank-top.
- Q. Show us what the work below the tank-top was, which you added in to that calculation.

- A. The sketch shows it.
- Q. Point out the sketch.
- A. At events, it shows part of it, on page 1.
- Q. On page 1?
- A. Yes, sir, that is on item 1. I do not think these pages are numbered.
 - Q. Tell us what that consisted of.
 - A. It consisted of floors—not flaws.
 - Q. There were none of those?
- A. Angle-irons; a certain amount of work inventing the different compartments that were formed by the intercostals and by having the corners cut off of the plates. Then there was work litening holes.
 - Q. What do you call the litening holes?
- A. The holes that are in a plate so as to lessen the weight, and also establish a means of communication between the two [1800—1711] compartments—the division rather.
 - Q. Is that all that was done under that?
- A. Then came the drilling of any number of holes and riveting. I suppose you refer now merely to that item No. 1, Mr. Frank?
 - Q. That is what I am referring to.
- A. Because they were cleaning out that tank, you will remember.
 - Q. We will come to that afterwards.
 - A. And cutting holes in the bottom and so forth.
 - Q. Of course you did not get down into the tank?
 - A. We did not.
 - Q. To see any of this at all? A. We did not.
 - Q. So you had no means of knowing, for instance,

(Testimony of Lionel Heynemann.) how large the holes were that were cut in these partitions, did you?

- A. We knew they were cut the ordinary sizes—the standard sizes.
 - Q. How did you know that?
 - A. Because we know what litening holes are.
- Q. That is all the information you had on the subject?
 - A. We knew the construction of the ship.
- Q. Well, you knew nothing about the construction of this particular ship from observation, did you?
- A. Yes, sir, we did. That is the only way we didknow it.
 - Q. You were not in the bottom there?
- A. No, sir; it was not necessary to be in the bottom.
- Q. Is that the way, also, that you arrived at the amount of riveting to be done in there?
- A. That is the way we arrived at the amount of riveting. You must not forget that the frames of the ship show beyond the margin-plates, so that the distance between frames is given, and that is the main item in allowing you to figure on what [1801—1712] work there is below the tank-top, the distance between frames.
 - Q. What did you allow for the girders?
 - A. What girders do you refer to?
 - Q. In the bottom?
 - A. I don't know what you mean by girders.
- Q. You don't know whether there were any girders in the bottom?

- A. No, sir, I think you mean floors.
- Q. I think you referred to it as an intercostal. Let us get back to the question. Read the question, Mr. Reporter.

(The Reporter reads the question.)

- A. Yes, sir.
- Q. What did you allow for the riveting on the intercostals? A. I don't remember.
 - Q. You have not any idea? A. No, sir.
- Q. Do you remember how much you allowed for cutting the holes in these plates that you call litening holes? A. No, sir, I don't remember.
 - Q. Have you not any means of getting at it?
 - A. Not now.
 - Q. Not now? A. No, sir.
- Q. How many hours of labor did you allow for laying the tank-top? A. I don't remember.
 - Q. You don't remember? A. No, sir.
 - Q. How did you arrive at the hours of labor?
- A. I arrived at that as a result of the knowledge of the particular conditions of this case and put down my figures for it.
- Q. What do you mean by the knowledge of the particular conditions of this case?
- A. The particular conditions of the work that I knew had to be done.
- Q. That is still not clear to me. What do you mean by the "particular conditions"?
- A. All the conditions as were shown [1802—1713] by the ship; the sizes of the plates; the distance of the frames; the number of rivets and rivet

holes that had to be drilled, and items of that kind.

- Q. Take the rivet holes that had to be drilled; how much time did you allow for drilling the rivet holes?
 - A. I don't remember how much time it was.
- Q. Did you make a figure on a specific number of hours for drilling the rivet holes?
 - A. I think we did.
 - Q. You don't remember how much time?
 - A. No, sir.
- Q. Do you remember how much time you allowed for laying any one plate? A. No, sir.
- Q. And you don't know anything about the details or the sum of the hours for the work on the tanktop? A. No, sir.
- Q. Is there any detail at all connected with that figure that you have in mind now?
 - A. No, sir; no detail.
 - Q. Absolutely none?
 - A. Except the detail I have just described to you.
- Q. With regard to the time, the hours worked, you have absolutely no recollection of any detail at all?
 - A. No, sir.
- Q. When was it that you and Mr. Gardner arrived at the detail respecting the hours worked on the tank-top?
- A. We arrived at our results in this way: Mr. Gardner made an independent estimate of item No. 1 and I made an independent estimate of item No.
- 1. Then we compared results and I either endeavored to convince him or he endeavored to convince me, that one's respective figures were correct.

- Q. When you compared results did you compare with each other the items by which those results were obtained? A. Very often we did.
- Q. Did you in the case of the tank-top? [1803—1714] A. I don't remember.
- Q. Do you remember anyone which you did of these 140 items?
 - A. I could not state positively at this date.
- Q. Then how did you yourself arrive at the number of hours which you allowed for this particular labor? A. From the conditions as stated.
- Q. What do you mean by "from the conditions as stated"?
- A. I mean by that, that we visited the ship and looked at the tank-top, measured up the plates, and the distance between frames and if I am not very much mistaken we measured the pitch of the rivets.
 - Q. The pitch of what?
- A. The pitch of the rivets, and we got as many details as we could, and figured up from those items as a basis.
- Q. And you don't remember what you allowed for time for anyone of the several matters that were necessary to be done in order to lay that tank-top?
 - A. No, sir.
 - Q. Did you in anywise itemize the labor?
 - A. How do you mean. In what way?
- Q. Did you figure the labor with reference to any particular part of the work?
 - A. Are you referring to the tank-top?
 - Q. Yes, always.

- A. Will you kindly repeat that question? (The Reporter reads the question.) To any particular part of the work? Why yes, we did.
 - Q. What particular part of the work?
 - A. We figured with regard to laying the plates.
 - Q. Laying plates?
 - A. Yes, sir, laying the plates and-
 - Q. Let us take that item—

Mr. McCLANAHAN.—Let the witness finish his answer, Mr. Frank. [1804—1715]

Mr. FRANK.—Let me examine the witness.

Mr. McCLANAHAN.—I object to counsel interrupting the witness in the middle of a sentence.

Mr. FRANK.—We will stop on that first item.

- A. Yes, sir.
- Q. How did you figure the labor for that item that you have just mentioned?
 - A. How did we figure it? How did I figure it?
 - Q. Yes.
- A. I don't understand the question, how I figured it. If you want me to give the number of hours that I figured on the labor for laying those plates, I could not do it just now.
 - Q. You could not do it? A. Not just now.
 - Q. When could you do it?
- A. I could do it when I had the peace of mind to do so; when my mind is perfectly at rest.
 - Q. Perfectly at rest? A. Yes, sir.
- Q. You could not give us any approximation as to the number?
 - A. I might give you an approximation but I would

(Testimony of Lionel Heynemann.) prefer not to do it.

- Q. Let us have your approximation then.
- A. I would rather not do it.
- Q. I would rather have it.
- A. Then I will refuse to give it to you.
- Q. You refuse to give any approximation?
- A. Yes, for the reason stated, that I do not want to make any mistakes, for the reasons already given you.
- Q. What is the next item on which you figured the labor? A. I don't remember.
- Q. You don't remember any part of that work on which you figured the labor, besides the labor of putting down the plates? [1805—1716]
- A. Yes, sir, but you did not ask that. You are asking about the next item. I don't remember what the next item was.
- Q. You are entirely too literal, Mr. Heynemann. Give us another item, then, if that expression suits you better. A. The large item is the riveting.
 - Q. How did you figure the labor on the riveting?
- A. I shall have to make the same reply that I made in reference to the plates.
- Q. Make the reply so that we will know what it is.
- A. With reference to the riveting, if I am not very much mistaken, we measured the pitch of the rivets. With the aid of a sketch that we had we knew approximately or could figure out approximately the number of rivets driven. In that way we arrived at our results in regard to the labor of riveting.

- Q. Having arrived at the number of rivets in the manner you have indicated, how did you fix the number of hours of labor to drive them? What were your units?
 - A. I don't remember just what units we took.
 - Q. You don't remember? A. No, sir.
 - Q. Would they not be standards, Mr. Heynemann?
 - A. Not necessarily.
 - Q. How would they vary?
- A. They would vary very much according to the position in which rivets are driven.
- Q. By that you mean whether they are driven horizontal or vertical?
- A. Not alone that, but the conditions under which they are driven. When a man lays on his back and has to hold on, and another man has to drive them on the top in some cramped place, he cannot drive the same number of rivets that he can under other conditions.
- Q. Assuming that condition, what is the unit? [1806—1717] A. There is no unit.
 - Q. There is no unit?
 - A. Not to that kind of work, that I know of.
- Q. Then, as a matter of fact, in work of that kind, any estimate you make is a pure guess?
 - A. Not at all.
 - Q. If it is not show us why it is not.
- A. Because a guess partakes of the nature of an hypothesis that is not based on such data as we had before us.
 - Q. The data that you had before you, if it is at all

(Testimony of Lionel Heynemann.) reliable, is the suggestion that one man lay on his back and another man is driving down from the top; is that right?

A. That may be one condition. I explain that to show the condition of driving rivets varies very much, and work on ship-board, particularly in the double bottoms, is an entirely different thing from riveting on the shell of a boiler for instance, or on the hull-plates—on the outside of the hull-plates.

- Q. We understand that, but in this case, there was riveting done on the tank-top, was there not, and there was riveting done on the stanchion underneath, and on the angle-irons, and there was riveting done in the bottom, was there not? A. Yes, sir.
- Q. In every conceivable position in the bottom of that vessel, was there not?
 - A. I don't know about every conceivable position.
 - Q. A great variety? A. A great variety.
 - Q. A great variety of riveting? A. Yes, sir.
- Q. What I am asking you for now is the unit or standard that you adopted to determine for any given position of those rivets the time required to drive them?
 - A. We had no standard. [1807—1718]
 - Q. No standard whatsoever? A. No, sir.
 - Q. And nobody could have, could they?
 - A. Not in the way you put it.
 - Q. Could they have it in any way?
 - A. In any way?
 - Q. Yes. You have made a distinction between the

(Testimony of Lionel Heynemann.) way I have put it. Presumably you have another way.

- A. No, sir. I should say that if the riveting gang would go through a certain amount of riveting in a certain way under certain definite conditions, that then that riveting gang could establish a standard for themselves in the way of repeating that same class of work under the same conditions.
 - Q. That particular gang? A. Yes, sir.
- Q. Is that the only way that a standard_could be arrived at?
- A. That is the only way that occurs to me just now. I am perfectly at liberty to say I don't know that there is a standard for all work under all conditions.
- Q. Then you would not want to undertake to say there is any standard by which anybody could determine the length of time required to do the riveting on that tank-bottom under the varying conditions under which it had to be done?
 - A. No, sir; I did not say that at all.
- Q. Let us have your answer and see what you do contend.
- A. You asked me if there was a standard. I said there was not a standard, but when it comes to arriving at results from the data shown, and from what you know of the way that work is conducted one arrives at results.
- Q. What do you know about the way that work was conducted, Mr. Heynemann?
 - A. I know that from experience on the one hand,

(Testimony of Lionel Heynemann.) and from descriptions of the work on the other hand, and from [1808—1719] seeing the tank-top myself.

- Q. That is all you know about how that work is conducted?
 - A. Yes, sir, I did not see the work done myself.
- Q. There might be other conditions attending the doing of that work which you have not considered, might there not?
- A. There is always a chance for a man being fallible. I do not put myself up at all as infallible.
- Q. By that, then, you mean to concede there might have been conditions attending the doing of that work of which you are not advised?
- A. There might have been. I don't believe there was.
- Q. Your belief in the matter, of course, does not cut very much figure. When you assume there might have been that is enough. Having passed from the riveting, what was the next element in your calculations arriving at that \$800? You have now the tanktop and the riveting. By the way, part of this riveting—a large proportion of it—was underneath, where you could not see? A. A large proportion was.
- Q. And where you could not see the rivet-heads either?
- A. I will then have to ask you what you mean by a large proportion? I don't know what you mean by a large proportion. Would that mean over 50 per cent of the riveting?
 - A. You can put your own construction on it be-

(Testimony of Lionel Heynemann.) cause you are the one that is testifying. Would there be over 50 per cent of it?

- A. I don't think there would be over 50 per cent below.
 - Q. There would be about 50 per cent?
 - A. I could not tell you that.
- Q. You would not know whether there would be 50 per cent or not?
 - A. Not unless I studied into it. [1809—1720]
 - Q. And you never did study into it?
- A. I just told you we did. We spent a good deal—I will not say midnight oil but electric light—studying this proposition.
- Q. About this question as to how much of the riveting was out of sight?
- A. No, sir. If you put it that way I don't think we did.
- Q. Whether put in that way or not, the substance of it you did not pay any attention to?
- A. I don't know that I fully understand the question.
 - Q. Read the question to the witness, Mr. Reporter.

(The Reporter reads the question as follows: "Whether put in that way or not, the substance of it you did not pay any attention to?")

- A. The substance of what?
- Q. As to the amount of riveting that was out of sight. You say I put it in that way?
- A. I don't remember that we segregated it in that way.
 - Q. Or in any way, did you?

- A. I don't remember that we did.
- Q. Have you any data now to show how many rivets went into that job?
- A. No, sir, we have no data whatever with regard to the details.
 - Q. No data whatever?
 - A. No, sir, except the data mentioned.
- Q. I presume this estimate at page 149, which is missing, had the data for which we are seeking, did it not?
 - A. Possibly it had. I don't remember that page.
 - Q. You say you don't remember that page?
 - A. No, sir. [1810—1721]
- Q. It says here it is an estimate of this particular work.

 A. I saw that. I don't remember it.
 - Q. You don't remember it at all? A. No, sir.
- Q. Now, after we have passed the tank-top and the rivets, what other element went into—when I say the tank-top, I should say, after having passed the surface and the rivets, what other details went into the work on the tank-top that is contained in this estimate of \$800? A. The caulking.
 - A. The caulking.
 - Q. The caulking? A. Yes, sir.
 - Q. What is the caulking on the deck?
 - A. Caulking of joints.
 - Q. Caulking of joints? A. Of the plates.
 - Q. How many hours did you allow for that?
 - A. I don't remember.
 - Q. You cannot approximate it? A. No, sir.
 - Q. Have no detail of it at all? A. No, sir.

- Q. If you were given the opportunity quietly, and out of my harassing presence, could you re-establish that? A. What do you mean, re-establish what?
 - Q. That detail of the number of hours?
- A. The detail of the number of hours I could approximately.
 - Q. You cannot do it approximately now?
 - A. No, sir.
- Q. How long would it take you if you had this quiet time by yourself, to re-establish the detail concerning those hours?
 - A. I could not tell you how long it would take.
 - Q. Would it take you longer than a single evening?
- A. I think I could do it in a single evening. I think I could. [1811—1722]
- Q. Mr. Heynemann, how did you in your figures treat these litening holes as having been cut, whether done while the partition was in the ship or done out of the ship?
- A. I don't remember that detail. I don't remember whether he figured the floors as having had the litening holes cut out before or afterwards. I don't remember that detail.
 - Q. You don't remember that detail? A. No, sir.
 - Q. Would it make a difference?
 - A. It certainly would make a big difference.
 - Q. Make a big difference?
 - A. I think it would.
- Q. How does it happen, Mr. Heynemann, that every detail that I ask for lies so far beyond your memory and on direct examination every detail, in-

cluding the figures which you have given, were so thoroughly in your mind that you answered promptly and quickly as the question was asked you without the necessity of referring to any notes?

Mr. McCLANAHAN.—I object to the counsel attempting to photograph the manner in which Mr. Heynemann answers questions put to him, and I will indulge in a little photographic business myself by disputing the statement made by counsel that he answered promptly and quickly every question, as soon as it was put to him; on the contrary, Mr. Heynemann has shown himself to be very deliberate and slow in making his answers to all questions.

Mr. FRANK.—Q. Now, Mr. Heynemann, with that instruction and intimation on the part of counsel, answer the question.

- A. The answer is a very simple one, it seems to me.
- Q. Well.
- A. I memorized those figures about half an hour before I came into the office here on Saturday morning.
 - Q. What was your purpose in memorizing them?
- A. I memorize [1812—1723] them frequently. Frankly speaking, I don't know what the object is, but Mr. McClanahan, I think, had in his mind that he wanted to show how thoroughly we had gone through this work, and I had in my pocket the same data as, for instance, that marked "Respondent's Exhibit No. 2," and I had opposite these items the numbers all over these schedules, as we call them, the extra bills, or the number of the item of the gen-

(Testimony of Lionel Heynemann.) eral specification, but Mr. McClanahan thought it best that I should not use it.

- Q. So you memorized it?
- A. I memorized it, yes.
- Q. So as to be able to testify in the manner in which I have indicated?
- A. Not exactly. I memorized only the figures of the estimate; but these other matters we speak of, such as the 140, items of the billhead, those I had been through so frequently that they did more or less remain in my mind, so that that is the answer; but in regard to those figures, I had simply memorized them about half an hour before I got into the courtroom; the fact of the matter is, that my memory is not particularly good.
- Q. Well, then—I am appreciating that now, Mr. Heynemann—am I to understand that you did nothing with those figures since April 29, 1910?
 - A. Oh, yes, we did.
 - Q. What did you do with them?
- A. Well, we discussed them in various ways. There was quite a good deal of work that we had not seen at the time we presented the letter to Mr. McClanahan on April 29th.
 - Q. Yes.
- A. That we made only what you might call a rough estimate of. But we afterwards had occasion to see it, such as drydock work, the work on the gudgeons, etc., and we went over our estimate again in the light of what we had seen and we found that there was no

(Testimony of Lionel Heynemann.)
necessity for making any change in our estimate.
[1813—1724]

- Q. How recently was that? That was as recently, wasn't it, as less than a month ago—was it not?
- A. It was after the vessel went on the drydock; I think that was September 22d of this year.
 - Q. September 22d or September 12th?
- A. I would not be positive, but it was some time in September of this year.
- Q. Is that the only time you went over your figures?
- A. No. I went over the figures at a variety of times—not over the figures, but over several items, as the different items were illuminated in different ways.
 - Q. How were they illuminated, Mr. Heynemann?
- A. Well, one way that I can recall is that when we met Mr. Klitgaard, whom we had not seen before, and he explained to us smaller items we had overlooked, and in that way we went over various items; but as the net result of the going over our items *pro* and *con*, we could not see that it affected our figures.
- Q. In other words, you did not change your figures at all from your figures of April 29, 1910?
 - A. No.
 - Q. In any particular? A. No.
- Q. Now, on these occasions, however, did you refigure it?
- A. We refigured the—no, I can't say that we refigured it, but we either added such items as we had

(Testimony of Lionel Heynemann.)
omitted and subtracted such items as we had put in
too much.

- Q. Well, now, that was last September.
- A. Yes, that was last September.
- Q. What items did you add and what items did you subtract last September?
- A. I don't know that I could recall that, but I think that I could furnish you with those items.
- Q. Well, give me your best recollection now of it; afterwards if you can furnish them, why, they will stand for what they are worth.
- A. I remember one item was the water servicepipes. [1814—1725] We understood that after they had been installed that the leads had been changed on some of them.
 - Q. Well, what did you do with that?
- A. We took such items as that and made an addition of them in favor of the United Engineering Works, and then made a deduction of other items that we had added in too much.
- Q. Well, do you know how much you added for the water service? A. I don't remember.
 - Q. Is there anything else you added anything to?
- A. Yes, we added—after we saw the vessel on the drydock we added for plates that had been put around the stern which had not been taken into consideration by us originally.
- Q. Do you know how much you added for those? That is only a month ago.
- A. Yes. That was quite a little amount, quite an amount of them. I would rather not state because

(Testimony of Lionel Heynemann.) my memory is not clear on the subject.

- Q. Anything else that you made additions for?
- A. I think there were also some zinc plates around the hub of the propeller that we added for.
 - Q. How much did you add for that?
 - A. I don't remember.
 - Q. Have you the detail?
- A. I think in the detail that I could furnish you, I believe, that the sizes of the zinc plate are mentioned, but I would not be positive of that.
- Q. Well, is the amount that you added for those also within your possession?
 - A. I think so, yes.
 - Q. Now, anything else?
- A. Let me see. Yes. I remember that we added for turning off the thrust-shaft in the stuffing-boxes on each end of the thrust-box.
- Q. Do you remember the amount you added for that? A. I cannot. [1815—1726]
 - Q. You did that also at this time?
- A. Yes, at the time we met Mr. Klitgaard. I would like to state that we met Mr. Klitgaard, I think, long before the vessel went on the dock, although I would not be positive about that; but these matters that I refer to, with reference to the zinc plates and the plates that went around the stern of the vessel, were only figured in after the vessel went on the dock. But when I say "figured in," I mean to say these details on this itemized list which, I think, I may be able to furnish you, we found that we had to make certain additions, and again found

we had to make certain subtractions, and the net result was, I think, a difference of, I think it was, \$15; so we did not think that we would change our estimate for the \$15. I don't remember whether it was for the United Engineering Works or against it.

- Q. Well, now, you have given us that. Let us proceed to the point that we were speaking of at the time you digressed. Is there anything else that you made an addition for?
 - A. I don't remember just now.
 - Q. You don't remember? A. No.
- Q. Do you remember anything that you made subtractions for? A. I don't recall just now.
 - Q. Can you furnish those to us to-morrow?
 - A. To-morrow is a legal holiday.

Mr. McCLANAHAN.—Q. Can't we go on to-morrow with you?

A. Certainly. Yes, I can furnish them to-morrow. That is, I believe I know where they are. I know these estimates were made on loose paper in lead pencil in rather haphazard way, as it will appear, but I think I still have them.

Mr. FRANK.—Q. All right; we will then ask you to produce to-morrow the [1816—1727] details of the additions and the subtractions which you have made to that list. A. Yes.

- Q. Now, then, we will go back. We have not finished with the tank-top yet. Did you figure on the plates that have the litening holes on being new plates or being plates already in the ship?
 - A. That question is contained in another question

that you asked me before. You asked whether I figured on the holes being drilled in place or out of the ship. If the litening holes were made in place, then, of course, they would be in the old plates.

- Q. Well, whether that is so or not, which you do not know, did you figure on that?
- A. I don't remember whether we figured on them out of the ship or in the ship.
- Q. Mr. Heynemann, what angle-irons were used in connection with the tank-top?
- A. I don't remember what angle-irons were used. I think very likely they were either $2\frac{1}{4}$ or $2\frac{1}{4}$ inches wide; that is, the leg was $2\frac{1}{2} \times 2\frac{1}{2}$ by possibly 5/16 or $3\frac{1}{8}$ thick.
 - Q. Is that what you figured on?
- A. I don't remember whether that is what we figured on or not.
 - Q. You don't remember what you figured on?
 - A. No.
- Q. Do you remember the number of feet of angleiron you figured on? A. I don't.
- Q. Do you remember the position in which you figured these angle-irons were placed? A. Yes.
 - Q. What were the positions?
- A. The positions were both athwartship and up and down.
 - Q. Where at?
 - A. On the floors, and on the intercostals.
- Q. Now, to make that a little plainer, because I am satisfied that the tribunal that will pass upon this will not quite know what the floor is nor what the

(Testimony of Lionel Heynemann.) intercostal is— [1817—1728]

- A. The floors are the sheets or plates that go athwartship, and the intercostals are the floors or plates that run between the frames in a longitudinal direction.
 - Q. Well, in other words—
 - A. The boxing, you might call it to make it plain.
- Q. In other words, the plates with the litening holes in run athwartship?
 - A. They run athwartship.
- Q. And the others are ordinary girders running fore and aft, are they not, and that makes the floor?
 - A. You can put it that way.
 - Q. Isn't that right? A. Yes.
- Q. Now, these are all underneath the tank-top, where you can't see them, are they not? A. Yes.
- Q. And the angle-irons run along these intercostals, as they call them, or girders, as they call them, the full length, do they not?

 A. No, they don't.
 - Q. Don't they run the full length? A. No.
 - Q. How far do they run?
 - A. Well, they don't run the full length.
 - Q. Read the question.

(The last question repeated by the Reporter.)

- A. They sometimes only run between frames, and sometimes they run between half a dozen frames.
- Q. Well, in this case you don't know whether they run between single frames or half a dozen frames, do you? A. No, I don't know.
- Q. And consequently you don't know the length of the angle-iron either?

- A. Yes, we did know the length of the angle-iron.
- Q. How did you know?
- A. Because it would not be any longer than the tank-top, I know, no matter whether cut off between the frames or extending the entire length. [1818—1729]
- Q. Did you allow for angle-iron the full length of the tank-top? A. We certainly did.
- Q. There are two angle-irons, are there not, on each one of these intercostals? A. Yes.
- Q. When I say two angle-irons, I will amend that; there are four, aren't there?
- A. Yes, I think there are two on top and two on the bottom.
 - Q. Two top and two bottom? A. Yes.
- Q. Did you allow for four angle-irons running the full length of the tank-top?
 - A. I don't remember the details.
 - Q. You don't remember the details?
 - A. No.
- Q. You don't remember how you figured on those angle-irons?
 - A. I don't remember the details of the estimate.
 - Q. No means of reproducing it at the present time?
 - A. No.
- Q. You could, however, reproduce that in the quiet of the evening, I understand.
 - A. I think I could make a stab at it.
- Q. Well, you understand that we are expecting you to stab at this to-night.

Mr. McCLANAHAN.—I object to the witness

making a stab at it, as you call it, unless the United Engineering Works want to pay for the labor involved; we do not propose to pay for it.

Mr. FRANK.—You have the queerest notion of the rights of examination. I do not care whether you do it to-night or when. You can do it now, if you want to, but if you prefer to do it in the quiet of the night I am satisfied you shall do it then, but I shall expect those figures, Mr. Heynemann.

A. I shall act according to the advice of counsel on our side in this matter.

Q. On your side of this matter? A. Yes. [1819—1730]

Q. Well, what am I to understand by that?

A. I don't know. It seems to me that it is perfectly plain. I do not propose to do any more work than I have to do, when I am not obliged to. I have done enough, particularly in the evening.

Q. Then you decline now to make these figures in the evening?

A. I do not decline; unless my side orders me to do so, I shall not do so.

Q. Well, if your side says nothing about it, then will you do it?

A. I would only go according to the advice of counsel on this side.

Mr. FRANK.—Well, Mr. McClanahan, if the witness is looking to you for advice upon this subject, I will ask you, then, if you offer any objection or interruption to Mr. Heynemann's making those figures to-night?

Mr. McCLANAHAN.—Mr. Frank, as I understand the latter, it will involve a good deal of labor on the part of Mr. Heynemann; he is an expert and is being paid for the labor which he has performed for us in this matter. If Mr. Heynemann is going to render us a bill for work which he is doing as an expert for you, I shall instruct him not to do it on our account. If you want to pay for his expert figuring, why, I have no objection to Mr. Heynemann accommodating you.

Mr. FRANK.—Well, I do not think I am called upon to pay Mr. Heynemann; he is under cross-examination. I am entitled to what I ask for here and now. He tells us, however, that he does not care to make the attempt here and now, because of the disturbing element of our presence, but he could do it in the night-time. I am giving him the privilege of doing it undisturbed, if he desires; [1820—1731] if not, I shall insist upon it being done at the examination. Now, either you or Mr. Heynemann, or both of you, can take your choice.

Q. What is your decision, Mr. Heynemann?

A. I shall act according to the advice of Mr. Mc-Clanahan in this matter.

Q. Well, you appreciate the fact that Mr. Mc-Clanahan is only concerned, as he states it, with the expense.

Mr. McCLANAHAN.—That is all.

Mr. FRANK.—Q. What is your answer.

A. My answer is that I have worked on this case, and I do not propose to do any work unless I am well paid for it.

Q. Well, we will see what the Court has to say about it, Mr. Heynemann.

Mr. McCLANAHAN.—Very well, Mr. Frank. I am perfectly willing to submit that to the Court.

Mr. FRANK.—Now, Mr. McClanahan, I want to suggest that you had better be prepared to go into Court with me to-morrow upon these questions.

Mr. McCLANAHAN.—I had anticipated you, Mr. Frank, in the matter, and found that the Court was not going to sit to-morrow.

Mr. FRANK.—I shall have to make some inquiry as to when the Court will hear this.

Mr. McCLANAHAN.—Wait a minute. I am mistaken about that. I had anticipated you on this matter of the sketch-book and found that the Court was not going to sit this afternoon. I think the Court will sit in the morning.

Mr. FRANK.—Q. Passing now, Mr. Heyenmann, to No. 2, I notice in your sketch-book the item "cut three holes in bottom of ship to facilitate cleaning No. 4 tank; oil drained out in [1821—1732] drydock and hole patched. "Labor for cleaning out No. 4 tank is the item of \$25, on this agreement between Mr. Gardner and H. L., the amount allowed for that No. 3— A. No. 2?

- Q. For No. 2? A. Yes.
- Q. That includes, does it, the cutting of the hole and also the cleaning out of the tank?
- A. No. No. 2 calls for cutting three holes in the bottom of the ship to facilitate the cleaning of No. 4 tank; it does not include the cleaning of the tank.

- Q. Then it is \$25 for cutting the hole?
- A. Cutting the hole.
- Q. What was the diameter of the hole cut?
- A. I don't remember.
- Q. You don't remember? A. No.
- Q. You made that figure of \$25 before you ever saw the hole, did you not? A. Yes, we did.
 - Q. And you never changed it?
 - A. Never changed it.
 - Q. Do you know that the hole was cut twice?
 - A. Which hole.
 - Q. That very hole. A. It says cut three holes.
- Q. Well, the three of these were each cut twice—did you know that? A. I don't.
 - Q. Would that made a difference in your estimate?
- A. It might make a small difference, yes. It would depend on how much they were enlarged; if they were enlarged only a small amount it would make a very small difference.
- Q. Now, you have got labor for cleaning out No. 4 tank; what did you charge for that?
 - A. I don't remember.
 - Q. No means of recalling it?
- A. I don't see where that item is; that isn't contained in No. 2, is it?
 - Q. Contained in that sketch.
- A. "To facilitate cleaning No. 4 tank." It does not say that the tank was cleaned.
 - Q. Just read underneath there.
 - A. "Oil drained out in drydock [1822—1733]

(Testimony of Lionel Heynemann.) and hole patched." "Labor for cleaning out No. 4 tank."

Q. That is what it says, don't it?

A. Yes, but, I believe, I think that that labor appears in another item.

Q. Well, show us the item where that labor appears.

A. May I see the schedules, the list of bills. I believe, Mr. Frank, that that is just a memorandum, that labor of cleaning out No. 4 tank; and does not properly belong to item No. 2.

Q. Very well; explain it to us.

A. It must appear in some other part of the estimate.

Q. Well, indicate where we will find it.

A. I can't find the item just now, and I would prefer to refresh my memory on this matter by looking over these papers, as I do not want to delay the hearing of this case. I feel sure that we figured on very much more than that item for the cleaning of the tank, and as I do not see it in the item No. 2, as that estimate simply refers to the way the item reads, cutting "three holes in bottom of ship to facilitate cleaning of No. 4 tank."

Q. Go on and take your time. I do not want to leave the subject, or I will probably forget it.

A. With reference to the labor, I am very well convinced that it appears somewhere else.

Q. Just hunt it up, then. Would this help you out any, your items?

A. No, I don't think so. I don't think it would.

I do not find the item, but it is firmly fixed in my mind that we figured for the cleaning of the tank a greater item than that would indicate.

- Q. This \$25? A. Yes.
- Q. You do not find it, however, anywhere in the itemized statement making up agreement between Mr. Gardner and L. H.? A. I don't.
- Q. Then you don't know whether you made any allowance for it [1823—1734] or not?
- A. I don't know that we made any greater allowance, but I have it fixed in my mind that we did; firmly impressed in my mind that we have made a greater allowance than that would indicate.
 - Q. Well, if you did, it must be in one of the items?
 - A. I don't find it.
- Q. Well, does not the fact that you don't find it convince you you did not make any allowance for it?
- A. It does not, because, while I don't find it amongst these items, it still may be there.
 - Q. It still may be in what items?
- A. It may be in some of these items that I have not observed in running over it.
 - Q. It is a very easy matter to go over.
 - A. I have gone over it; and I do not find it.
 - Q. It is not there, is it?
 - A. I would not be positive about that.
- Q. When you say you have gone over these items, you mean you have gone over Respondent Kinsman's Exhibit No. 2; is that right? A. Yes.
 - Q. And it does not appear there?
 - A. It does not appear, so far as I can see, just now.

Q. And if it does not appear there it certainly does not appear in the figures which you have presented of the agreement between Mr. Gardner and L. H.?

A. I would not say that it does not appear in the figures; we might have only allowed that much.

Q. You minght only have allowed \$25?

A. Yes, for the full item.

Q. Then, if it appears there at all it appears in that \$25; is that right? A. Not necessarily.

Q. Well, let us get down to something that is definite, Mr. Heynemann, [1824—1735] as to what you would want us to understand. You say you might have allowed it in that \$25, but you say not necessarily; now, if you did not, where did you allow it?

A. I could not tell you. I could not tell you whether we made any more allowance for it than is contained in that.

Q. \$25? A. In that \$25.

Q. Now, do you know what the nature of that work was, Mr. Heynemann?

A. The cleaning of the tank?

Q. Yes. A. Yes, I think so.

Q. What was it? A. Steaming it out—

Q. Well.

A. Steaming it out and getting all the grease out.

Q. Is that all?

A. That is the nature of the work, yes.

Q. When you say steaming it out and getting all the grease out, you are assuming that the oil itself would run out of the hole, are you not?

- A. No; it would have to be assisted.
- Q. In what way? A. By men.
- Q. In what way?
- A. By men opening up the manholes and assisting it with swabs.
 - Q. That is all that you have in mind?
 - A. That is all I have in mind just now.
- Q. Do you remember how many hours were allowed for that labor? A. I do not.
 - Q. That is assuming it is contained in that \$25?
 - A. Yes.
 - Q. How many hours of labor would \$25 produce?
- A. I think we only figured 40 cents an hour for that class.
 - Q. For that class of labor? A. Yes.
 - Q. 40 cents a hour for what length of a day?
 - A. We figured 40 cents an hour.
- Q. 40 cents a day, irrespective of the length of the day? [1825—1736] A. Yes, sir.
- Q. Well, did you make any allowance in the number of hours so as to make that 40 cents the equivalent of a ten hour day?
 - A. I do not know that I understand your question.
- Q. Don't you know that the real rate for men at that time was at the rate of \$4 a day, for an $8\frac{1}{2}$ hour day?

 A. You mean that they were paid \$4?
- Q. I mean that was the going rate in this port charged by all iron works for labor of that class.

Mr. McCLANAHAN.—What class?

Mr. FRANK.—Ordinary labor.

Q. Isn't that so, Mr. Heynemann?

- A. We figured on an hour basis.
- Q. You figured on an hour basis?
- A. At shop rates.
- Q. What? A. I say at shop rates.
- Q. What do you call shop rates?
- A. The rates marked on your billhead.
- Q. And you made no allowance in time then for the difference between those rates and the prevailing rates in this port for an 8½ day?
 - A. We made an allowance of \$2,000.
- Q. No. You are not talking about the same question. You told us this morning that that \$2,000 was for overtime. A. Yes, sir.
- Q. That is a very different thing from what I am talking about.
- A. It is what we had in mind that that \$2,000 would cover.
 - Q. Would cover what?
- A. Cover the difference between, first of all, the straight overtime and also the difference in the number of hours that the men worked and the time that you charged.
- Q. I do not get that very clearly, Mr. Heynemann. [1826—1737]
- A. Suppose that a man worked 8½ hours on a day and you charged for 10, or for 9, as the case might be, you would be charging for more hours than the men actually worked.
 - Q. Yes, but at a less rate than the going rate.
 - A. How do you mean?
 - Q. 40 cents an hour was not the going rate.

- A. He was not paid any 40 cents an hour; the laborer was not paid any 40 cents an hour.
- Q. That has nothing to do with it; 40 cents an hour was not the going rate charged by people in that business for that work? A. Yes, sir.
 - Q. What do you say "yes" for? I say it was not.
 - A. Well, I say it was.
- Q. That is your position; that is the position that you take.
- A. That 40 cents an hour was the going rate for that class of work per hour.
 - Q. That is for an 8½ hour day?
- A. Only per hour; you will find your own billheads made out per hour.
 - Q. Yes.
- A. And you will find the rate is 40 cents an hour on that class.
- Q. Is that the basis of your statement that was the going rate for that class of labor? A. Yes.
 - Q. That is the basis of it? A. Yes.
- Q. Very well. Now, with that understanding, let us get back to your \$2,000. What does that represent, while we are at that, and then we will go back to the other matter again.
- A. That represents the overtime which was an arbitrary amount that we took for granted, and also the difference between the hours actually worked and the hours you charged for. [1827—1738]
- Q. Now, that we may understand each other, when you say the hours that we charged for, you mean by that the ten hour day or the nine hour day, as it hap-

(Testimony of Lionel Heynemann.) pened to be?

- A. The nine hour day, of course. I might say this that we had nothing to do with the arrangement that the United Engineering Works had with the men; all we were asked to do was to make an estimate, a fair estimate, on the value of this work, and we estimated that per hour, that amount of work per hour.
- Q. But in estimating it per hour, you consider the fair value to be the number of hours multiplied into the going rate per hour, would you not?
 - A. Yes, sir.
- Q. And the 40 cents was not the going rate per hour?
- A. Well, I think that 40 cents was the going rate for that class of work.
- Q. You state so, because you say you saw it on our billheads. A. Yes, sir.
 - Q. That is your only authority for saying so?
 - A. Yes, sir.
- Q. I think we understand each other now. I will come back to the \$3,000 later, Mr. Heynemann. Now, it is five minutes after 4; do I understand now, Mr. Heynemann, that you will or will not produce the additions and subtractions which you have been testifying to, the detail of the additions and subtractions which you say you have, and which were made on the original estimate, to-morrow morning?
 - A. The changes on the original estimate?
 - Q. Yes.
- A. I think I have that data on several papers on which those changes were enumerated, and if I have

(Testimony of Lionel Heynemann.) you will have them.

- Q. And you decline to figure on the tank-top so as to give us the detail by which you arrived at the \$800 to-morrow morning?
- A. I shall act on the suggestions of counsel on this side in that [1828—1739] matter.
- Q. I understand that your declining, then, is not based upon personal inconvenience, but is based upon a desire to meet the wishes of counsel on that side; is that right?
- A. It is, as you may easily imagine, not very convenient to continue to work at a matter of this kind after you put so much work in it; the same reasoning that you apply to item No. 1 you can apply to the 140 items, and I can tell you I do not propose to sit home at night figuring over these 140 items.
- Q. In other words, you don't propose, Mr. Heynemann, to give us the detail for the alleged sums that you have offered here and sworn to?
 - A. Unless I was very well paid for it.
 - Q. Unless you are very well paid for it.
 - A. Yes.
- Q. You do not understand, then, that you have offered yourself here as a witness on this subject to our right to get the information of the detail which forms the judgment which you have given?
- A. I have given you as much of the detail as I think is necessary in this particular instance.
- Q. You have not given us the detail which is necessary to form any judgment of the correctness or incorrectness of your figures?

 A. I think I have.

- Q. Well, we differ in that respect. A. Yes.
- Q. You decline to furnish us any further detail?
- A. I did not say I do decline. I will furnish you with as much detail as I can now remember, and if you are to ask any more questions about it I will be perfectly willing to answer them.
- Q. I will sit down and ask you the question again necessary to get that detail to-morrow morning.
 - A. As far as I can remember. [1829—1740]
- Q. Unless you provide me with the detail in the manner which I have indicated.
- A. I will give you the best of my recollection and belief on all the items, but I do not propose to stay at home and work over 140 items.

Mr. FRANK.—I suggest, Mr. McClanahan, that you meet me in court to-morrow morning at 10 o'clock, and we will see at what time the Judge will hear us upon this subject.

Mr. McCLANAHAN.—Have you communicated with the Court?

Mr. FRANK.—He has a matter set for to-morrow morning for hearing, and I guess we would not be very likely to be able to get a hearing until that matter is disposed of. I will take this paper with me.

Mr. McCLANAHAN.-No, you can't.

Mr. FRANK.—Why can't we?

Mr. McCLANAHAN.—You introduce them in evidence and you can take them; otherwise, not. I told you this morning you could have them for one hour.

Mr. FRANK.—Do not talk to me like that; talk in a different tone from that. You will get into trouble

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the first thing you know if you don't stop that.

Mr. McCLANAHAN.—I am prepared to get in trouble.

Mr. FRANK.—You are liable to get in trouble if you keep on like that.

Mr. McCLANAHAN.—I am prepared to get into trouble any time you want to.

Mr. FRANK.—You will get into trouble. Do not talk to me in that tone of yours.

Mr. McCLANAHAN.—I will do as I please.

Mr. FRANK.—You will get something with this yet if you don't [1830—1741] stop that. This thing can be carried on properly.

Mr. McCLANAHAN.—It will be carried on properly.

Mr. FRANK.—This thing can be carried on properly, but you are not controlling this, or any other examination to suit yourself.

Mr. McCLANAHAN.—Please give me that paper.

Mr. FRANK.—I want that.

Mr. McCLANAHAN.-You will not have it.

Mr. FRANK.—Why not have it?

Mr. McCLANAHAN.—Because I have got it.

Mr. FRANK.—You turn it over to me.

Mr. McCLANAHAN.—I shall not turn it over to you; you are not going to have them, Mr. Frank.

Mr. FRANK.—Very well. Make a note of that, Mr. Reporter. We will see whether I will have that paper or not.

Mr. McCLANAHAN.—I do not know how the notes are going to get it.

Mr. FRANK.—We have a perfect right to examine

the witness on it.

Mr. McCLANAHAN.—You certainly have, and you have been doing so. You introduce it in evidence and I will grant you the usual favor that we have been granting to each other of taking them.

Mr. FRANK.—Well, I would like to learn from you wherein your rights are affected unfavorably by my examining the paper, whether introduced in evidence or not introduced in evidence.

Mr. McCLANAHAN.—No need of encumbering the record with any further discussion, Mr. Frank; you cannot have this paper.

Mr. FRANK.—Very well, Mr. McClanahan.

Mr. McCLANAHAN.—I will produce it when we proceed with our hearing to-morrow and not before. [1831—1742]

Mr. FRANK.—Very well. I will take the rest of these. You take forcible possession of just so much of the record as you see fit.

Mr. McCLANAHAN.—I am not taking forcible possession of any of the record.

Mr. FRANK.—You are; you are taking it away from me now.

Mr. McCLANAHAN.—I say, you make it a part of the record and you can have it.

Mr. FRANK.—When the proper time comes. I will exercise my discretion about introducing it.

Mr. McCLANAHAN.—You cannot take it unless you do.

Mr. FRANK.—All right. That is another letter there that is not in the record. Where is the original of that?

Mr. McCLANAHAN.—That is not in the record. I have no objection to your seeing that, if you want to.

Mr. FRANK.—Are you withdrawing that now?

Mr. McCLANAHAN.—You seemed disinclined to take it. I did not want to let it lay around loose; you are gathering up all the exhibits.

Mr. FRANK.—I am gathering up everything that I can lay my hands on, and you are gathering up everything you can to prevent me from getting it.

Mr. McCLANAHAN.—Oh, no. I am not gathering up the exhibits at all.

Mr. FRANK.—I am gathering up the record for examination, which I think you will concede I have a perfect right to do.

Mr. McCLANAHAN.—Sure.

(Thereupon adjournment was taken until Tuesday, November 7th, 1911, at an hour to be set at 10 A. M.) [1832—1743]

Tuesday, November 7th, 1911.

Before Judge J. J. DE HAVEN.

Mr. FRANK.—If your Honor please, in the matter of the testimony that is being taken in the case of the Matson Navigation Company, there are some questions as to the admission of evidence or questions of evidence to be passed upon. We should like to have the Court fix some time when your Honor can hear us. Mr. McClanahan was to be here this morning, but I do not see him.

The COURT.—What is it?

Mr. FRANK.—There are some questions relating

to a witness answering to be passed upon. Here is Mr. McClanahan.

The COURT.—Do you propose to argue the question of the admissibility of the testimony?

Mr. FRANK.—We propose to ask your Honor's ruling on some questions that have arisen in the course of the testimony—one in particular.

The COURT.—I dislike to decide a case in that way.

Mr. FRANK.—A witness refuses to answer certain questions. That is one of the questions that we wish to submit to your Honor.

The COURT.—I will hear it. Unless the questions are wholly irrelevant, so that I can see instantly that they are irrelevant and impertinent, I shall direct the witness to answer. On these hearings I cannot have the parties running up here every day to have me rule on isolated questions.

Mr. FRANK.—Whatever your Honor suggests about it, I shall be glad to do.

The COURT.—Unless it is something that is wholly immaterial and irrelevant, the proper thing to do is for the witness to answer the question, and then the materiality of it, and what [1833—1744] effect it has, will be determined by the Court when the Court comes to consider the whole case.

Mr. FRANK.—How shall we present the matter to your Honor?

The COURT.—If the witness understands, and counsel understands, that that is the attitude of the Court, it will not be necessary to have any order. If not, I will take it right up now and make the order,

whatever it may be.

Mr. FRANK.—What do you wish to do about it, Mr. McClanahan?

Mr. McCLANAHAN.—I am here unwillingly, if your Honor please. I have not any request to ask of the Court. I want to proceed with the hearing, not this hearing but the hearing under the reference. Mr. Frank suggested that I come here this morning, and I am here. I have no request to make of your Honor.

Mr. FRANK.—I desire to get the ruling on the matter, if your Honor please, and desire to present it. If the Court will hear it now, I will be pleased.

The COURT.—I will hear it.

Mr. FRANK.—The particular question to which I have just referred is the question of an expert who has been placed on the stand to testify with regard to the value of certain work. That work is segregated into items, and he has placed a value opposite these items. The items themselves are mere statements of certain things that have been done to the vessel. When I asked the witness for the details, how he had made up these particular figures, he answered me at first that it would be difficult for him to do that in my presence, because he said that it would be a disturbing influence, that he might make mistakes in addition and multiplication or matters of that sort, and he declined to do it. I then asked him if he could suggest any method by which he could do it. He said if he were alone, quietly, by himself, [1834-1745] he could do it. I then asked him to do it alone, quietly, and by himself, last night, and

bring it in this morning, so that we could get at the details by which he arrived at those figures. Under instruction of counsel he declined to do it, the reason being given, as the record appears, that it was an unreasonable thing to ask of the witness, and also that the defendant was paying the witness for his services and if we required any such things of him that we should pay him for whatever he did in that regard. I think that is a fair résumé of the matter.

The COURT.—That is the statement of the case? What particular page of the record is it on? Have you the record there?

Mr. FRANK.—Yes, I have the record here. It occurs in several instances through the record. Here is one instance on page 1706:

"Q. Now, Mr. Heynemann, I will again have to ask you to give me some of the details that made up that \$800 which you say you allowed for these tanktops, and for that purpose that you may take the data that you then had before you, and use it.

"Mr. McCLANAHAN.—I object to that upon the ground that it is asking something unreasonable of the witness, and on the ground that the witness has already given his reasons for refusing to answer it, and this is simply encumbering the record."

After some argument he says:

"A. In answering that I will state that it would be so difficult for me to do it that I do not propose to do it.

- "Q. You do not propose to do it? A. No, sir.
- "Q. Let me ask you, Mr. Heynemann, that item refers to the tank-tops, does it not?

- "A. Yes, sir. [1835—1746]
- "Q. In making up that estimate how many lbs. of iron did you allow for?"

Then I go into the details, asking certain questions.

Mr. McCLANAHAN.—All of which are answered.

Mr. FRANK.—Yes, but they are not the questions to which we are referring. I come back to that. I asked him:

- "Q. Taking those measurements now, kindly figure out how many lbs. of iron there were on that surface shown by those measurements.
- "A. I can give you that this way, that this material, as near as I can remember, was a quarter inch material and that weighed 11 lbs. to the foot as far as the surface is concerned. These plates are all more or less what are called sketch plates. They are not full plates. This sketch does not represent the actual condition that would be necessary to take into account when you figure on a proposition of this kind. You would have to take a plate and allow for a considerable waste before you could figure on it. This sketch represents a mere skeleton. For me to undertake to figure on a proposition of that kind before you would simply mean that I would be making one mistake after the other, because while that appears to be complete to you it is not complete.
- "Q. Very well. That is the data you had before you when you make the original figures?
 - "A. Yes, sir.
- "Q. Why cannot you make the same allowances you did before in order to make the complete figure that you did before?

"A. I could, but as I have already stated I don't think it right to ask it, therefore I refuse to do it.

"Mr. FRANK.—I think we had better adjourn this meeting until I can get a ruling of the Court upon this subject. I am going to find out whether or not on cross-examination I [1836—1747] have a right to the details by which these amounts are arrived at.

"Mr. McCLANAHAN.—You shall not adjourn this hearing with my consent. If you do it will be as far as you leave the room and prevent the hearing from going on. We shall proceed with this hearing if I have got anything to say about it. You will have to leave the room and stop the hearing in that way.

"Mr. FRANK.—I am sure I do not understand, Mr. McClanahan, the lordly manner in which you are treating this matter. The law provides for certain things which I am entitled to, and I do not like your manner one bit. There are also other ways of stating them different from what you have stated," etc.

The discussion runs along and I return to my question:

"Q. Do you refuse to make any calculation on that subject at all at this time?

"I have several times made calculations in open court, and I have seen other engineers do the same thing, and their mind is not arranged, or so arranged that they can discard the fact that they are being watched and observed, and there is somebody on top of them to see and watch the results that accrue from their work; and it confuses the engineer and is very liable to cause mistakes.

- "Q. Is this, then, so delicate an operation, Mr. Heynemann, that the mere fact that somebody is present would cause you to make a material error in your calculations?
- "A. It might, not because it is at all a delicate matter but I think I can explain it best in this way. Supposing I were to arrive at a result that there are contained in the surface shown here approximately 22 times 8. That would be a certain amount of square feet. Multiply that by 11 lbs. That is not a delicate operation at all. But I might make a mistake in [1837—1748] multiplying common figures.
 - "Q. That is all you fear?
 - "A. That is all that I fear.
- "Q. That could very easily be corrected at the time?
- "A. It could not, Mr. Frank, because one operation succeeds the other, and the final result I might arrive at might be wrong for the reason I may have made some mistake.
 - "Q. Mistake in multiplication?
- "A. Either in multiplication or addition, some of the elementary processes necessary to arrive at this estimate.
- "Q. Is that the nature of all the difficulty in the way of making a calculation here and in our presence?

 A. No, sir, that is not the only one.
 - "Q. What is the other?
- "A. Another difficulty is to get the thing clearly in your mind."

The COURT.—The upshot of it is, he refused to answer?

Mr. FRANK.—He refused to answer, and under instructions of counsel.

The COURT.—What is the answer to this?

Mr. McCLANAHAN.—I do not understand that Mr. Frank claims that he has refused to answer anything.

The COURT.—I think he has from this.

Mr. McCLANAHAN.—What question has been asked that he refused to answer?

The COURT.—He says he cannot do it.

Mr. McCLANAHAN.—That is the point.

The COURT.—He cannot do it there.

Mr. McCLANAHAN.—The point is this, if your Honor please: The witness has not refused to answer any question put to him. He has been asked to do the work as an expert, at night if necessary, that he was employed to do first originally by the [1838—1749] respondent in this case, for which he is under engagement, which he has done, and which he has presented as the result of his work in court on the direct examination. He is asked to do that work all over again. He has stated that it involves a great deal of labor; that he has lost his original notes. He has produced the sketches which have not been introduced in evidence, but they show the difficulty that must attend the refiguring of all this evidence in the matter of weights, measures, etc. He has been asked practically to do the whole thing over again. Mr. Heynemann simply says he does not propose to expend any more time in working these problems out unless he is paid for it.

The COURT.—Your proposition then is that he can.

Mr. McCLANAHAN.—Let me read to your Honor the evidence that has not been read: "You decline to figure on the tank-top so as to give us the detail by which you arrived at the \$800 to-morrow morning?

"A. I shall act on the suggestion of counsel on this side in that matter."

When Mr. Heynemann made that statement he referred to his pay. If I had said "Yes; do that work for counsel," he would hold my client responsible and I should have to pay it.

- "Q. I understand that your declining then is not based upon personal inconvenience but is based upon a desire to meet the wishes of counsel on that side; is that right?
- "A. It is, as you may easily imagine, not very convenient to continue to work at a matter of this kind after you put so much work in it; the same reasoning that you apply to item No. 1"—

This dispute arose over one of 140 items, one of 140 items on which Mr. Heynemann as an expert has figured. Mr. Heynemann says: [1839—1750]

"It is, as you may easily imagine, not very convenient to continue to work at a matter of this kind after you put so much work in it; the same reasoning that you apply to item No. 1 you can apply to the 140 items, and I can tell you I do not propose to sit home at night figuring over these 140 items.

"Q. In other words, you do not propose, Mr. Heynemann, to give us the detail for the alleged

sums that you have offered here and sworn to?

- "A. Unless I was very well paid for it.
- "Q. Unless you are very well paid for it?
- "A. Yes.
- "Q. You do not understand, then, that you have offered yourself here as a witness on this subject to our right to get the information of the detail which forms the judgment which you have given?
- "A. I have given you as much of the detail as I think is necessary in this particular instance.
- "Q. You have not given us the detail which is necessary to form any judgment of the correctness or incorrectness of your figures?
 - "A. I think I have.
 - "Q. Well, we differ in that respect. A. Yes.
 - "Q. You decline to furnish us any further detail?
- "A. I did not say I do decline, I will furnish you with as much detail as I can now remember, and if you are to ask any more questions about it I will be perfectly willing to answer them.
- "Q. I will sit down and ask you the question again necessary to get that detail to-morrow morning.
 - "A. As far as I can remember.
- "Q. Unless you provide me with the detail in the manner which I have indicated.
- "A. I will give you the best of my recollection and belief on all the items, but I do not propose to stay at home and work over 140 items." [1840—1751]

If the Court please, this raises a question of law as to whether the Court has a right or the counsel has a right to ask what we claim to be an unreasonable performance on the part of this witness. Acknowledging he is an expert under our pay; he did this work, I think, in April, 1910. It was work which was done after a great deal of examination of the machinery of the ship, of taking the measurements, the computation of weights, and the computation of time necessary to do the work. Elaborate sketches were made of the items of machinery at the time, and an estimate was arrived at in this way. There were two experts in the case—Mr. Heynemann and Mr. Gardner. The evidence shows that after they inspected this work together on several occasions, consuming hours of time, they retired to Mr. Gardner's office at night and would do their figuring separately, Mr. Heynemann taking item No. 1 and placing his figures on it after his compilation, and Mr. Gardner doing the same thing. Then they would compare and, as Mr. Heynemann said, "We would try and convince each other that our figures were right"; and they would finally arrive at a compromise figure and that compromise figure they would put down opposite the item shown to be item No. 1, \$800. The other memoranda that were used in arriving at the results, the weights, the measurements made, the labor that each had allowed for the work, had been destroyed. Naturally, as Mr. Heynemann says, that was all done on loose sheets of paper. The net result is this: The sketches and the measurements are there. Every one of these 140 items has opposite the result of this man's work made under those conditions. He is asked now to sit down after this lapse of time and refigure that work out. I do not believe he can do it, but that is what he is asked to do. Mr. Heynemann's reason [1841—1752] for not doing it is that he should be paid for a thing of that kind. We contend that is a matter of law that is well settled. He has not declined to answer any question, as your Honor sees. He simply declines to perform labor as an expert without pay. I admit that the rule of law is that an expert may be compelled to give testimony without pay.

The COURT.—Let me understand that. You say he gives each item; for instance, he says 100 pounds of nails.

Mr. McCLANAHAN.—Let me illustrate, if your Honor please. The items are taken from the billhead that is sued on by the libelant; for instance, Item No. 1 on the billhead reads: "Renewed No. 4 tank-top and secured fore and aft angle irons under same." That is Item No. 1 as sued on, a test of the libel. We have taken that billhead and figured it into 140 separate distinct matters of work. We call that the "140 list." It is really the billhead of the libelant that is sued on, so when he says "Item No. 1; \$800," Mr. Heynemann means that is his estimate of what it would take to renew No. 4 tank-top and secure angle-irons under the same.

The COURT.—He has set out in his answer that that is made up of so many pounds of iron and so much putty used, and so many hours of labor, and so on, and he sets all that up.

Mr. McCLANAHAN.—That is what he is asked to go back and refresh his mind on. How can he do it without his notes? He has destroyed them.

The COURT.—Your proposition is you have a

right to put him on and let him say that this item made up of 140 different items amounts to \$800, and that the other side are not permitted to ask him how he reaches that? [1842—1753]

Mr. McCLANAHAN.—They have asked it in detail how he reaches that. He said, "I figure in the material, I figure in the calking, and I figure in the necessary drilling and all that; but," he says, "I cannot remember the weight of those things."

The COURT.—Does he say he figures in four pounds of calking?

Mr. McCLANAHAN.—No pounds are figured in. He cannot remember the pounds.

The COURT.—He cannot remember it?

Mr. McCLANAHAN.—No.

The COURT.—How in the world are they going to find out if his \$800 estimate is right if they cannot find out what he took into consideration?

Mr. McCLANAHAN.—He simply gives his opinion as to whether it was right or not. They know the work that was done. They are entitled to bring experts to rebut that testimony. They know what the work was. They did it. Mr. Heynemann did not do the work, but simply saw it after it was done. He is giving his estimate, and the memorandum of it was made a long time ago and has been destroyed. This is cross-examination, I admit. Mr. Heynemann came in and said on direct examination he figured on this 140 list. He figured on all the work, and he told on direct examination how he examined the work, his means of knowledge of the work itself, how it was done, and what was done. Then I asked him

what was the value of that work. They have sued us on the whole bill. I had a right to ask the expert the value of that work. He gave a lump sum. cross-examination he was asked to produce the sketch-book and this little item showing the itemization, which are not in evidence, as is the only remaining data on which the compilation [1843—1754] is made. All he has is this. He has been asked to produce it and he has done it. It is clear, if the Court will bear with me, counsel has no right to ask of this expert to go to this additional labor. He is willing to give him all the information by way of testimony that he can remember about the matter. He has not declined to do so, and has done so so far as he can. but when he asked him to do labor as an expert, he must pay the witness. That is the rule clearly established by the Federal courts. The case of the Northern Pacific vs. Keyes is a case in point, where the Attorney-General called for certain cables which required the inspection of the waybills of a concern running over four years.

The COURT.—That is a matter that can be regulated as to who shall pay for this on the final argument.

Mr. McCLANAHAN.—That is not the only point. I do not want your Honor to require this man to do something he may not be able to do and which will prolong this trial. Mr. Heynemann was days performing this work.

The COURT.—I really do not know how this case is being tried. It is difficult for me to conceive how in a suit on an account that you cannot put in all the

testimony that has any bearing on it in two days at the outside, I should say. I do not know how minute this is going to be.

Mr. McCLANAHAN.—I am particularly anxious to close this case, because my time limit of ten days expired yesterday. I am here to ask for more time, and in doing so I want to ask for two hours in which to put in my direct evidence. Two hours is all I want. But how long is Mr. Frank's cross-examination going to be? I want to suggest to your Honor that you limit [1844—1755] the cross-examination.

The COURT.—I cannot do that. I do not know but what the easiest way is for me to hear the case. I know I could try this case in less than three months.

Mr. McCLANAHAN.—Your Honor could do it in less than a week. I am willing to have the submission set aside and brought before your Honor.

Mr. FRANK.—That all sounds very well, if your Honor please. As your Honor says, you are not acquainted with the manner in which this case has proceeded. This suggestion of counsel is a very easy thing when he has taken and built up a case with experts; for us to get at it in a few moments is almost impossible. Here is an expert who has absolutely refused to answer the questions asked of him. He says he has not refused to give the information asked. He says it is a mere matter of multiplication and addition.

The COURT.—I do not care about hearing any further argument. I am satisfied that the counsel

is entitled to have those questions answered. If it becomes necessary for him to take out his pencil and figure what 8 times 22 will be and give his answer 166, he must do it that way.

Mr. McCLANAHAN.—That involves doing 140 items.

The COURT.—Let him do it. When I come to consider this case if I find that that was wholly unnecessary, why then the party who brings that cross-examination out will have to pay the expert. I cannot sit here and determine offhand just how far this cross-examination should proceed. I cannot do it. So far as I can see, there is nothing impertinent in the question, if the man can do it, and if it entails any unnecessary expense, as a matter of course I can regulate that in the end. [1845—1756]

Mr. McCLANAHAN.—I spoke of the time limit

having expired.

Mr. FRANK.—You need not trouble yourself about that. I am not going to insist upon it.

Mr. McCLANAHAN.—I want to trouble myself

about it.

Mr. FRANK.—Very well.

Mr. McCLANAHAN.—If counsel will permit me, I want to make the suggestion to the Court that I be limited to hours instead of days in the matter of putting in my direct testimony, and that counsel be limited to hours instead of days in the matter of cross-examination. I do not see where this case is going to land us. It is a veritable Marathon. There are 1750 pages of record so far. I do not want to put myself in the position where I have overstepped

the order of this Court. I think the record will show that part of my time was used by counsel improperly; for instance, on two occasions in my case counsel deliberately adjourned the hearing in order to inspect such documents as had been introduced. On one occasion, I think, for three hours, and on another one hour.

The COURT.—I shall not make any order limiting the cross-examination. You can have what time you think you desire to put in your direct testimony. If there does not seem to be any need of cross-examination, and if it goes on very long, I will entertain a motion to check it in some way. I do not myself think there is any necessity for taking 1700 pages of testimony in a case of this kind. I do not have any idea what it is, but in a simple suit on an account for work and labor I do not think there is any necessity for it. I shall not make any ruling at this time any further. What time do you desire?

Mr. McCLANAHAN.—I have not the slightest idea. I simply know how long it will take me to put in my direct testimony. [1846—1757] When I can put on my last witness, who is Mr. Gardner, I do not know. I anticipate that if this witness, Mr. Heynemann, is required to go into the thousand and one details on that 140 item list, it will take three weeks before I will be able to put on Mr. Gardner; then he will be asked to do the same thing, and where are we? I am at sea.

The COURT.—Do you desire three weeks time to put in your testimony?

Mr. McCLANAHAN.-I do not desire any un-

necessary time. I say I cannot tell how long it will be. It seems to me we had better leave it open without making any order.

The COURT.—I will make an order. When does your time expire?

Mr. McCLANAHAN.—It expired yesterday at noon and I have one more witness.

The COURT.—I will give you ten days within which to put in your testimony, and I will give the libelant ten days within which to cross-examine.

Mr. McCLANAHAN.—That will make twenty days.

The COURT.—You can take it if you want to.

Mr. McCLANAHAN.—I understand that your Honor's order about the rebuttal remains the same, that the libelant has five days in which to put in his rebuttal testimony. That will make twenty-five days in which to close the case.

The COURT.—He ought to be able to get in his cross-examination in the same length of time that you put in your direct examination. If you only take four days to put in your direct, then he ought only to take four days.

Mr. McCLANAHAN.—I will take only two hours if I get a chance to put on Mr. Gardner. [1847—1758]

The COURT.—In that view, how many days do you think it will take you to cross-examine, Mr. Frank?

Mr. FRANK.—I am not able to fix any time for cross-examination. That depends entirely on the exigencies that may arise. These witnesses that he

puts on are experts that he has been taking months to prepare. As he himself says, the details are enormous. I am entitled to sufficient time to find out from them whether willingly or unwillingly—because my difficulty has been great in getting anything from them so far—on what basis they arrive at their conclusions. I think I can fairly say to your Honor that I will take no unnecessary time. I never have in cross-examination, with all due respect to counsel. His cross-examination on my part of the case, I think, will far exceed any cross-examination that I have made. Of course, if I am exceeding the time that is right or proper, I am always willing to submit the matter to your Honor, but I think it can fairly be left to me. This whole talk about time I am sure I cannot perceive the purpose of.

The COURT.—Very well. You will have ten days in which to finish your testimony, Mr. McClanahan, and Mr. Frank will have ten days in which to cross-examine the witnesses, and take the time for rebuttal. If you cannot get at the testimony in those limits, I will have to make some other order in the case. [1848—1759]

AFTERNOON SESSION.

[Testimony of Lionel Heynemann, for Respondent (Recalled—Cross-examination).]

LIONEL HEYNEMANN, cross-examination resumed:

Mr. FRANK.—Q. Mr. Heynemann, you were in court this morning, weren't you? A. Yes, sir.

Q. Since the adjournment have you conferred with Mr. Gardner regarding the details that you have

(Testimony of Lionel Heynemann.) been asked for? A. I have.

- Q. Are you ready to produce them?
- A. Do you mean to produce them now?
- Q. Yes.
- A. No, sir, it is an impossibility; I have not got them.
 - Q. You did nothing on them last night?
 - A. No, sir.
- Q. What is it that you propose with respect to them?

Mr. McCLANAHAN.—I object to that question.

Mr. FRANK.—The question is asked so as to give the witness the opportunity of suggesting some mode best known to himself so that the end can be accomplished.

Mr. McCLANAHAN.—What end, Mr. Frank? What do you want?

Mr. FRANK.—I want him to give me the details that I asked for last night.

Mr. McCLANAHAN.—Of item 1?

Mr. FRANK.—Yes, at present.

Mr. McCLANAHAN.—Let us have an understanding, you and I. If Mr. Heynemann is going to be asked to figure this entire list over again, let us have that understanding. If he is going to be asked simply the one item, that is an entirely different matter and we ought to know. Let us have an understanding as to what you want. Are you going to ask him for each item? [1849—1762]

Mr. FRANK.—Whether or not I will ask him for each item will depend on the answers I get to the

(Testimony of Lionel Heynemann.) questions as I go along.

Mr. McCLANAHAN.—Then the Lord help your 10 days for cross-examination! I think the matter can be clearly covered by telling him what you want and letting him get to work on it. To have a recess for the figuring of one item and come back, and a recess for the figuring of another item will take considerable time.

Mr. FRANK.—Q. Is it necessary that we should have a recess for the figuring, for instance, of the first item, Mr. Heynemann?

A. I don't know Mr. Frank, whether you fully appreciate the difficulty of making these figures over again. I think that your examination of me yesterday showed you how difficult it is to recall the items that made up the cost of that particular item. You asked me, for instance, about the different stages of the work. I forgot entirely to mention that we had also figured on the testing of the tank. Another thing I forgot was that we had figured on the cleaning of the tank in that item. I imagined I knew that we had figured on it. I had it firmly fixed in my mind, but I thought that it was a separate item in either the schedules or in some part of the general specifications, and not being able to find it, it escaped my memory entirely that we had to figure on it in item No. 1.

Q. What has refreshed your recollection on the subject?

A. A conversation with Mr. Gardner. He recalled it to my mind immediately that we had figured on (Testimony of Lionel Heynemann.) that. That only pertains to part of the answer. With regard to the testing of the tank, I thought of that last night at home. [1850—1763]

- Q. I still do not appreciate the difficulty.
- A. It shows you that it took me nearly half a day to get my mind into that shape that was necessary to remember just exactly what we did figure on.
- Q. You have refreshed your mind now and know about this tank-top. There ought not to be much difficulty to give me the details, and then we can ascertain afterwards what, if anything, you have left out. It seems to me that you are suggesting difficulties that are largely imaginary because you have told me that you have all the data from which you made those figures?
 - A. If I said that I was mistaken.
- Q. What other data do you wish now to suggest as missing?
- A. You asked me yesterday with reference to the thickness of the top plates, and the size of the angleirons. I made a statement to you that the plates were only a quarter of an inch thick and the angleirons $2\frac{1}{4}$ or $2\frac{1}{2}$. I don't remember just what I did mention. In order for me to assure myself with regard to the actual thickness of that plate, and the actual size of the angle-irons I will have to figure out the scantling of the ship.
 - Q. By the scantling of the ship you mean what?
- A. I mean the scantling number of Lloyds. There are several standard numbers that guide the constructor in the sizes and weights of material.

Q. Could I have that schedule that I was examining you upon?

Mr. McCLANAHAN.—This one (producing)? Mr. FRANK.—Yes.

- Q. Have you made any endeavor to ascertain what has become of page 149 of this sketch-book?
- A. I have made no endeavor with regard to any pages of that book at all so I don't know just what 149 is. [1851—1764]
 - Q. That is the estimate?
- A. No, sir; I have made no endeavor to. I should like to add that you stated that I said I had all the material here. I believe I mentioned that we also needed the ship.
- Q. Do you mean to tell us that you did not take the size of the plates and put them down in your sketch 145?
- A. I may have done so. (After examination.) Now, I come to think of it, I don't believe that we had any means at that time of ascertaining the thickness of the plates except as I stated before by going over the scantling number at Lloyd's.
- Q. How long will it take you to produce that Lloyd's book?
- A. I could not say. I don't think it would take very long. The particular Lloyd's book that this vessel was built from I may not be able to procure at all.
- Q. Did you not have it when you made these figures?
 - A. I was going to continue, Mr. Frank. I have no

doubt that the newer Lloyd's book has not been changed in the particular that we will have to look up in reference to the thickness of the tank-top, and I believe we can come close enough to it by taking one of the modern books, or one of the recent books rather.

- Q. You do not want us to understand that the 1910 book is not accessible?
- A. Not at all. The reason I mentioned this point is the way you frame your question about getting the proper book. The proper book in the case was the book that was issued when the vessel was building, which I understand is a good many years ago, and it may be difficult to get hold of that particular book.
- Q. You did not have that book when you made the other figures? A. No, sir. [1852—1765]
- Q. You can have the same book that you had last April a year ago?
- A. Yes, sir. I want to mention another difficulty so as to show you what the troubles are in the way of making a new estimate. With reference to the cleaning of the tank, I do not remember whether we figured on the tank cleaning with the plates off, or the plates on.
- Q. You mean with the top plates off, or the top plates on?
- A. Yes, sir. Another thing I do not remember is, how we figured the cleaning of the tank, with reference to the manner in which the gases were first driven out. Sometimes those tanks are seamed, as I stated yesterday. Sometimes they allow water to

run through. Sometimes the tanks are filled with water. I should have to refresh my mind with regard to these points by either going on board of the ship, or seeing somebody that knows about these things. You furthermore asked me a question about the litening holes, whether those were cut in the ship or out of the ship. I don't remember those details. I mention these things to show you the difficulties in the way of making a new estimate of an item.

- Q. Those details, Mr. Heynemann, were not matters that you could observe yourself, anyhow, were they? A. No, sir.
- Q. They were matters that somebody else told you about?
 - A. Yes, sir; that is, not all; not all the matters.
 - Q. Those that you have mentioned? A. No, sir.
- Q. How did you find out whether the cleaning was done with the tank-tops off or the tank-tops on?
 - A. By being told.
- Q. How did you find out whether the litening holes were bored in place, or bored before placed?
 - A. By being told. [1853—1766]
- Q. How did you find out any other details with respect to the cleaning out of the tank?
- A. With respect to the cleaning out of the tank we had to rely on what we were being told.
- Q. So seeing the ship would not help you in any of those respects?
- A. Yes, sir; but we are talking about the whole item of No. 1.
 - Q. I am talking about the particulars of item 1 in

(Testimony of Lionel Heynemann.) which you are suggesting your difficulties.

- A. You are talking about the cleaning, and I am talking about the whole item of No. 1.
- Q. Give us any more of the difficulties that stand in your way in item No. 1.
- A. I should want to go aboard the ship to see what facilities there were for handling plates, the location of the hatch, and matters of that kind. I would want to go and see how the plates were arranged, with reference to the margin plates, and with reference—
- Q. One at a time. What would the hatch have to
- A. If there was no hatch at all, it would cause more expense in handling the plates, in handling all the material.
- Q. You do not remember, now, whether there was a hatch or not?
- A. I cannot recall just now whether there was a hatch or not. I think there was, though.
- Q. You mean a hatch over that particular portion of the hold of the vessel? A. Yes, sir.
 - Q. What is the next item?
- A. I would want to refresh my mind with regard to the way the plates but up against the bounding-bar of the shaft-alley. I have no clear recollection now whether they went underneath the angle-iron, or whether they butted right up against it.
 - Q. What is your further difficulty?
- A. I would also want to [1854—1767] look at the tank-top on the margin plates.
 - Q. For what purpose?

- A. To see whether possibly the margin plate was bent over the tank-top, or whether there was an angle-iron there.
 - Q. What are your further difficulties?
 - A. I should like to count the number of rivets.
 - Q. Did you count them before? A. Yes, sir.
- Q. You do not mean that you counted the number of rivets; you mean the rivets only shown on the top of the tank.
- A. The tank-top; we could not count what we could not see.
 - Q. What is your other difficulty?
- A. I have in mind that the entire tank-top was not reconstructed. I would want to go over the part that was.
 - Q. For what purpose?
 - A. For the purpose of re-estimating item No. 1.
- Q. Now, haven't you drawn here a sketch of the tank-top with measurements and details?
 - A. Yes, sir.
 - Q. For that very purpose? A. I have.
 - Q. Is it not sufficient? A. It is not.
 - Q. Is that not what you acted upon at that time?
 - A. We had a number of other sketches.
- Q. You told me that these were all the sketches and all the details that you had. Now, where are the others?
- A. I don't remember making that statement. If I did make it, I am mistaken.
 - Q. Where are the others now?
 - A. Those others were hand sketches, that we made

(Testimony of Lionel Heynemann.) on board ship, or that we made while estimating; rough hand sketches; they were destroyed.

- Q. Is not the detail of those hand sketches embodied in 145?
- A. Not necessarily; they may have been. [1855—1768]
 - Q. Don't you think they are now?
- A. It is possible that they may have been. I think they are, with reference to that tank-top.
 - Q. Is there any other difficulty?
 - A. None that I can think of. I have mentioned all.
- Q. Do you wish us now to understand that without seeing the ship it would be impossible for you to give us any idea, for instance, of the amount of material that you figured on as going into the surface of that tank-top?
- A. No, sir; I don't want to leave that impression. I am only relating to you what difficulties there are in the way of reproducing the exact estimate that was made once before. In other words, when we went on board of that ship we were given a great deal of information that was at our fingers' ends when we made the estimates.
 - Q. That is, given information how?
 - A. By word of mouth.
 - Q. Some one told you things?
- A. Yes, sir; not alone that, but we saw a good deal of details that may and may not have escaped our memory, and that might affect this estimate.
- Q. That is, you saw details that were pointed out to you by Mr. Kinsman; is that right?

A. No, sir, not necessarily. He may have pointed out in a general way, for instance, in reference to No. 1, "Here is a tank-top," and we would look at the details of it ourselves. I am only trying frankly to tell you the difficulties of replacing and reproducing an estimate.

Q. Very well, then. You have the details here to show the amount of material that went into that tanktop? A. As far as the sketch goes, I have that.

Q. Now, I would like you to give us your estimate of that particular item?

A. Do you mean right now?

Q. Yes.

A. I could not very well do it. I mentioned to you [1856—1769] yesterday that those are sketch plates.

Q. Yes.

A. Now, the way to figure sketch plates is to take a stock list of some steel concern that furnishes plates, and then you lay out the stock plates so as to have as little waste as possible on the stock plates. If I were to figure an estimate and not figure in the waste, you would immediately count it up against me. That is the reason I don't care to make the estimate now.

Q. In other words, Mr. Heynemann, you wish us to understand that you take a stock plate and attempt theoretically to fit that stock plate to the particular opening that is to be covered and cut away the surplus as waste; is that right?

A. I think you have the general idea, Mr. Frank, only you used the word "theoretically." It is not a

question of theory. It is a condition that confronts us when we have a certain number of plates to get out in a particular form; then we lay in these plates to scale on the stock plate in the most favorable way so as to have as little waste as possible.

- Q. Without confining ourselves to President Cleveland's distinction, I still insist it is a theory on your part as compared with the actual operation of the man who did the work, is it not? A. No, sir.
 - Q. It is not?
- A. It is not. I should say that a man was very careless that ordered these plates without having gone through that same process.
- Q. But having gone through the same process, the fitting of the plates is still the proof of the pudding, is it not?
 - A. I don't quite get the gist of your question.
- Q. The setting of the plates is still the proof of the amount of [1857—1770] waste that would be necessary.
- A. I still do not understand your question, Mr. Frank.
- Q. I cannot make it any plainer, Mr. Heynemann. In figuring this tank-top, what different kinds of labor did you allow for?
 - A. I think we went through that yesterday.
- Q. If we did, we will do it again to-day. I do not think we did touch on it.
- A. My idea of the work on the tank-top is about as follows: at first the matter of cleaning the tank would have to be considered. The holes had been previously cut.

- Q. What holes?
- A. In the bottom of the ship, for the purpose of cleaning, and I would then want to inquire, as I said before, whether the plates were taken off and the tank was then cleaned, or just how it was cleaned; but a certain amount of labor of, I should say, helpers came in on the cleaning; that is one class of labor.
- Q. How much helpers' labor did you allow on the cleaning?
- A. I don't remember. I know it was quite an amount, though.
 - Q. Did you figure it as a separate item?
 - A. We certainly did.
 - Q. Helpers' labor? A. Yes, sir.
- Q. And you had no idea to-day how much helpers' labor you allowed? A. No, sir.
 - Q. Very well. What is the next item?
- A. After the tank had been cleaned and the plates cut out, rivets cut out, and such work on the frames and floors and intercostals cut away that were deteriorated, the work of reconstruction could begin.
- Q. Now, let us get the amount of labor and the nature and kind of labor that you allowed for cutting away those parts.
- A. There would be a certain amount of riggers; a certain number of helpers; a certain number of ship-fitters. I may also state [1858—1771] that, previous to this, the work of sending the men in there to do the construction work, probably a chemist's charge would be involved, to see if all the gases were out; that would be an item of expense.

- Q. Have you any idea how many riggers you allowed for?
- A. No, sir; I have no idea at present in regard to the number of men we figured on for any of this class of work.
- Q. What rates did you allow for the different classes of men on this work?
 - A. We allowed the rates as per your own billhead.
- Q. In other words, you figured on it as you suggested yesterday as though the rate in our billhead was a rate given for a ten hour day instead of an eight and a half hour day; is that right?
 - A. No, sir.
- Q. You applied the rate per hour charged in our billhead to what you calculated to be the actual hours worked; is that right?
- A. No, sir; I would not say that, either. I know that our general estimate was made on straight time, but I remember that we figured in a number of instances day's time. For instance, I remember riggers—figuring on a day's work for riggers. If I am not very much mistaken, we took a nine hour day as the basis.
 - Q. A nine hour day?
- A. A nine hour day; and on top of that, as already stated, we added the \$2,000.
 - Q. The \$2,000 you stated was for-
- A. (Intg.) For extra work and bonus work on the extra work.
 - Q. What do you call bonus work?
 - A. Well, on account of this difference in hours.

- Q. That is what it was allowed for?
- A. That is what it was allowed for.
- Q. How did you happen to figure on day's work on this particular [1859—1772] job instead of hours as you told me yesterday?
 - A. I don't say that I did.
- Q. It is very hard for me to follow you, then, Mr. Heynemann; what did you say?
- A. I said, I remembered in making the total estimate that we sometimes did figure on day's work in some of the items. Whether we did that with reference to item No. 1, I don't remember.
- Q. Do you remember any item that you did that with reference to? A. No, sir.
 - Q. You do not? A. No, sir.
- Q. Now, let us take items 6 and 7. I show you your sketch detail and ask you whether or not that does not give you every detail necessary to figure upon that subject. (Handing.) A. By no means.
 - Q. It does not? A. No, sir.
 - Q. What more do you require?
- A. I require the same items, to a large extent, that I would require to make an intelligent estimate on the tank-top.
- Q. You have your checker floor plate and sizes there, have you not? A. Yes, sir.
 - Q. You have your angles and sizes?
- A. I do not by any means know, and I do not believe that is the entire lot of angles that we figured on.
- Q. In other words, you want me to understand, then, that the memorandum that you have presented

(Testimony of Lionel Heynemann.) to us as complete is not complete?

A. It is by no means complete, no.

Q. Yesterday you told me those were all the details that were necessary for figuring.

A. I don't remember that I did. If I did, I am mistaken. [1860—1773]

Q. You are mistaken to-day?

A. Yes, sir. I think I told you that I thought the ship was necessary, too.

Q. Yes.

A. Another point I wish to make about this angle-iron; while that may cite the amount of angle-iron figured on, we would have to determine just how that angle-iron was cut up; how it was used; part of it may have been used to bend around parts of the machinery; it would by no means, nor could any man figure on the work by being presented with that list. He would have to go aboard the ship and examine it very thoroughly. I happen to remember the item on No. 6. I think 6 and 7 is marked \$500. That is a very large item and you can see by that list of material that it is a comparatively small lot of material; most of it is labor in that \$500 item.

Q. You arrive at the labor, do you not, by consideration of the details stated here on No. 6 of your sketch?

A. No, sir; we arrived at the details by frequent visits to the ship.

Q. I say the labor.

A. And I answer, we arrived at the labor by frequent visits to the ship.

Q. That is these three or four visits that you made preceding this calculation?

A. Yes, sir. You have no doubt been on the ship yourself and you know the conditions back of the engine; it is a very complicated situation. A great many of those plates are cut. There is not a plate in there that is not cut to fit some part or other.

Q. Yes, but you are an expert in this matter, and it seems to me that you should be able, having that training and education which you say you have, to carry some small part of this detail in mind, [1861—1774] considering, as I have suggested to you before, that on the direct examination you did not fail to remember anything for a second.

A. Will you kindly reread that question to me, Mr. Reporter.

Mr. McCLANAHAN.—That is not a question, is it, Mr. Frank?

Mr. FRANK.—Yes, it is. He can make such reply to it as he sees fit.

Mr. McCLANAHAN.—Read the question to the witness.

(The last question read by the Reporter.)

The WITNESS.—I do not understand the last part of it. (The Reporter again reads the question.) There are so many points involved in that statement that I should like to have it segregated.

Mr. FRANK.—Q. Does not your training help you to remember these matters of detail which you have so carefully studied and so carefully figured out?

A. By no means. It is not a question of study and

learning. While I have an idea of the situation, still when you come to figure on it, you have to have these details before you. I also would like to have this understood. I think, Mr. Frank, this is the first time you have complimented me by calling me an expert. My idea of an expert is that he should be a man of extraordinary competency. I do not consider myself any more than ordinarily competent.

- Q. You do not consider yourself expert on these matters?
- A. Not in your sense. That is not in the sense in the way I state. I really don't know what an expert estimator is. I never heard of such a thing.
 - Q. You never heard of such a thing?
 - A. As a man being an expert estimator.
 - Q. Why not?
- A. I have heard of an expert locksmith and an expert ball-player, but I never heard of and in fact don't know [1862—1774] anybody that calls himself an expert estimator.
- Q. What is the peculiarity of the business of estimating that prevents anyone becoming expert at it?
- A. People may become expert at it in a sense; but no matter how expert they may be at it, they would have to go on board of a vessel in a great many instances to refresh their memory. It would be impossible for them to carry all the details in their mind.
- Q. Is that the only distinction that you wish to make between an expert estimator and an expert ball-player?

- A. An expert ball-player might be one in a million, and I do not consider myself one in a million.
- Q. Mr. Heynemann, have you not furnished the representative of the Matson Navigation Company with a more detailed report of the cost of these repairs than that which has been furnished to us?
- A. No, sir, I have not. On the contrary, I have never furnished this sheet, this itemized sheet.
- Q. Pointing to "Agreed between Mr. Gardner and L. H."?
- A. Yes, sir. The only estimate we have furnished the Matson Navigation Company is the estimate, as far as I can remember, of April 29th.
 - Q. That is the letter we have been talking about? A. The letter.

Mr. FRANK.—Now, I should like to have those two letters, Mr. McClanahan. (The letters were handed to counsel.) I offer the first one in evidence and ask to have it marked Libelant's Exhibit Heynemann No. 1.

(The letter is marked "Libelant's Exhibit Heynemann No. 1.")

I now offer the second one— [1863—1775]

Mr. McCLANAHAN.—You had better distinguish between the two.

Mr. FRANK.—I am distinguishing—which the witness has testified to was rewritten a day or two ago with the yellow copy attached, as Libelant's Exhibit Heynemann No. 2.

(The letters, etc., are marked "Libelant's Exhibit Heynemann No. 2.")

I now offer in evidence the sketches concerning which the witness has testified, which bear the impression "S. S. Hilonian 1910," and ask that that be marked Libelant's Exhibit, Heynemann No. 3.

'(The sketch-book is marked "Libelant's Exhibit Heynemann No. 3.")

- Q. I notice, Mr. Heynemann, on "Libelant's Exhibit, Heynemann No. 2," the letter of McClanahan & Derby concludes, "It may be just as well to have your Mr. Diericx collaborate with these two gentlemen in their work." Did Mr. Diericx collaborate with you in making up this report?
- A. He did not, except that I believe he took us down to the steamer on one occasion. But my memory is not even clear on that point. But with regard to the estimate, he did not collaborate with us.
- Q. Did he not furnish you with the plan upon which your estimate has proceeded?
 - A. No, sir, he did not.
 - Q. Who did?
 - A. I don't know what you mean by the "plan."
- Q. You must recognize that your estimate has a definite plan which is not a natural one for a person asked to estimate upon any given piece of work. You have made segregations and exceptions.
 - A. Yes, sir.
 - Q. Is that not right?
- A. We have made segregations and exceptions; that is right. [1864—1776]
 - Q. At whose suggestion?

- A. At the suggestion of the letter of Mr. Mc-Clanahan.
- Q. And that is the only aid you have had in making up this estimate?
- A. I do not like to answer a categorical question in that way; the only aid we have had in making up the estimate. I should say no. We have had aid that I have detailed before.
- Q. You made an allowance here, Mr. Heynemann, of \$1300 and odd for failure to remove the crankshaft? A. Yes, sir, that is correct.
- Q. Can you give me the details by which you arrived at that figure? A. I could not.
 - Q. Why not?
- A. Because it was the result of a great deal of work, figuring, refiguring, reconsidering, and it is a final figure that we arrived at as a fair figure. We had understood right along that \$2,000 was the estimate given by one of the United Engineering Works.
 - Q. You so understood? A. We heard.
 - Q. That is, some one told you so?
- A. Yes, sir, we heard from somebody in connection with this litigation—I don't remember who it was—that \$2,000 was the figure that one of the gentlemen of the United Engineering Works stated it would be worth not to take the crank-shaft out but to do all the rest of the work. We were not affected by that figure. Our figure was \$1398.
- Q. You must have in mind the particular elements that go to make up that figure.
 - A. I have not them in mind just now.

- Q. As an expert—if you will permit me to use the expression once more—you do have in mind what you think what would be necessary to take that shaft out of the ship and remove it to the shop, do you not?
 - A. I have some items in mind. [1865—1777]
 - Q. Give us some of those that you have in mind.
- A. My idea about taking out the crank-shaft would be that the best way to take it out would be to strip the entire upper works above the crank-shaft, take out the bolts that connect the cylinders with the columns, take out all the upper works of the ship over the engines, bring the ship under the shear-legs, take the cylinders off and raise them by aid of the shear-legs and put them on the wharf; in other words, you would come pretty close to dismantling the entire engine. Of course this would mean that all the reciprocating gear would have to be taken apart and stowed away, and all the parts properly marked, the binders all taken off all the bolts marked and stowed away, and possibly—I will put it this way—not possibly, but no doubt the coupling bolts would have to come out between the thrust and the crank-shaft and then the crank-shaft would be lifted bodily out of the ship and placed on a car on the wharf, in order to be able to transport it to the machine-shop.
- Q. And those elements that you have just enumerated are the elements for the cost of which you have deducted this \$1,350?
- A. First of all, I think it is \$1,398; but it by no means comprises all the—
 - Q. They are part of that \$1,350?

- A. They are part of that \$1,398.
- Q. What is the rest now?
- A. The thrust-shaft would have to come out in the same way, and both parts taken up to the machine-shop; the thrust and crank-shaft would have to be coupled together again. I believe the specifications called for the thrust and crank-shaft being put on the lathe and tested together in its entire length. Certain changes would have to be made to the machinery in the machine-shop to be able to accomplish that purpose. [1866—1778]
 - Q. What kind of changes?
- A. I don't believe that the United Engineering Works have a lathe that would do that work without changes.
- Q. And is the providing of that machinery another element in that \$1,398?
- A. The changes to the lathe would necessarily be an item to consider in figuring up the cost of this job.
 - Q. Was it an item?
- A. I don't remember whether the changes to the lathe was. If it was not, I think it should have been. I think our idea in not figuring it at the time was that we had no positive knowledge that the United Engineering Works was not fitted to do the work in in the way specified.
- Q. Do you know whether you did or did not figure it?
 - A. I don't believe that we did figure that.
 - Q. You don't know? A. I don't know.
 - Q. You have suggested, Mr. Heynemann, some-

(Testimony of Lionel Heynemann.) thing about experts in estimating. What is the foundation for the knowledge on which all estimates are based?

- A. That is rather a difficult question to answer. I should say first of all a proper education; a certain amount of knowledge, knowledge of the subject, a general knowledge of the subject, and a natural aptitude to be able to lay out work in one's mind to get at the results.
 - Q. Have you finished? A. Yes, sir.
- Q. Your answer is simply a circle, Mr. Heynemann. I am asking you for the foundation of that knowledge. Do you wish us to understand that your course at the Royal Polytechnic Institute at Hanover gives you any knowledge for a practical estimate of this kind? A. It certainly does.
- Q. You are basing your assertion of ability then on your course at Hanover; is that it?
 - A. I have not asserted any ability. [1867—1779]
- Q. You are by coming here and offering the estimate, if in no other way.
- A. You may look at it in that way, but I have not made any assertion.
- Q. I understood you to say yesterday that your chief experience in estimating was acquired at the Fulton Iron Works? A. That is correct.
- Q. Is it not a fact, Mr. Heynemann, that the only basis for estimating is your knowledge, practical knowledge of other work of a similar nature—the cost, I mean, of other work of a similar nature done under similar circumstances?

 A. No, sir.

- Q. It is not? A. No, sir.
- Q. Why did you dwell on your past experience in estimating?
- A. Because I think that it is of value in reference to estimating on this work.
 - Q. Only incidentally of value?
- A. I don't know what you mean by incidentally of value; it is of value.
 - Q. What is the relative value then of it?
 - A. I could not answer that question.
- Q. Is it not the chief element of value in your training? A. I would not say so.
 - Q. You would not say so? A. No, sir.
- Q. In your experience at the Fulton were your estimates relied upon by the Fulton Iron Works?
 - A. They were.
 - Q. Did you do it yourself? A. Very often.
 - Q. Very often? A. Yes, sir.
- Q. By that I am to understand you did not generally do it yourself?
- A. No, sir. I think I can make the statement that generally the estimates that I made were made by myself, but I made a great many estimates in conjunction with Mr. Quigler, our marine engineer [1868—1780] at the time, and also with other foremen.
- Q. What do you mean by "conjunction," Mr. Heynemann?
- A. We would go on board together and do just the same as Mr. Gardner and myself have done in this case.

- Q. You have no practical experience yourself, have you, Mr. Heynemann, in the mechanical part of machine work or hull work?

 A. I certainly have.
 - Q. You have? A. Yes, sir.
- Q. Where did you get it? In the draughting-shop?
- A. When I was an apprentice in 1871 at the Fulton Iron Works I worked on marine engines myself at that time as an apprentice. But if you mean by practical experience in hull work, that I have taken a hammer and chisel and driven rivets myself, I have not.
- Q. Is that the extent of your practical experience in machine work—your apprenticeship?
- A. No, sir, it is not. I should like you to define, Mr. Frank, what you mean by practical experience. Do you mean actually doing the work yourself?
- Q. I mean such actual contact with the work as would give you a knowledge of the details.
- A. In that case I should say that I have had that actual experience right along; not alone at the Fulton Iron Works, but at the other iron works too; at some of the other works.
 - Q. That is, you mean as a draughtsman?
- A. As a draughtsman, and I would then come naturally in contact with the work.
- Q. But you have never done any machine work or hull work except what you have testified to during your apprenticeship?
- A. I have. I have done work myself on several vessels, where I have actually done the work myself.

- Q. To a limited extent?
- A. To a limited extent. [1869—1781]
- Q. The Fulton Iron Works failed under your administration, did it not? A. It did not.
- Q. Which part of that question does the denial apply to? It certainly failed.
 - A. It applies to the entire statement.
 - Q. It failed?
- A. I don't know whether you want to call it that. I think probably that would describe the condition, but it was not under my management.
- Q. How long had you left it at the time that it failed? A. I should say 5 or 6 years.
 - Q. As long as that? A. Yes, sir.
- Q. Now, your present work as Pacific Coast Manager of the Goldschmidt-Thermit Company has nothing to do with this class of business, has it?
 - A. It has.
 - Q. In what respect? A. In marine work.
 - Q. What is the particular article that you handle?
- A. The particular article is a welding material that is used for welding rails in the street, making a continuous joint, and for welding engine-frames particularly with reference to locomotives in the large railroad shops, and nearly all the large railroad companies of the United States are using our material now, and—
 - Q. In other words, Mr. Heynemann-
 - Mr. McCLANAHAN.—Let him finish his answer.
- A. (Continuing.) —and it also is used for repairs on the drydock of vessels.

Mr. FRANK.—Q. Assuming it is used for all those purposes it is nothing but a simple unit, a tool for welding purposes, is it not?

A. It is very far from being a simple unit for [1870—1782] welding purposes. It involves a good deal of knowledge and a good deal of experience to know how to handle it. I may say that at first the Goldschmidt-Thermit Company, which is a very large concern, having branches all over the world, had its interests placed in the hands of a mercantile concern here. They found that it would be absolutely necessary to place it in the hands of an engineer, and it was only for that reason that they made a change; that it was more of an engineering than a mercantile proposition.

Q. That was for the sale of it?

A. No, sir, it was not for the sale of it. On the contrary, for the use of it.

Q. It does not bring you practically into relation of marine engineering or repairing, or ship-building or repairs except in so far as you endeavor to sell the process to those who are engaged in that business?

A. You have an entire misconception of it, Mr. Frank. One of its principal uses is for the repair of certain parts of vessels on the drydock.

Q. We will assume that, then. But your office is to sell it to the people who do repair work?

A. No, sir, it is not.

Q. What do you do?

A. We look at the vessels on the dock and we examine into conditions whether a repair with our

process is practicable. If it is we make a bid, and if possible get the work. Then, I have to go down myself to the vessel that is on the dock, or at the wharf, and make all the plans for carrying on the work, and then do the work myself; that is, with my assistants. [1871—1783]

- Q. That work is welding, is it not?
- A. That work is welding.
- Q. That is all there is to it?
- A. There are other things connected with it. There is a good deal of molding work connected with it.
 - Q. Welding and molding?
 - A. Welding and molding and designing.
- Q. Returning now, Mr. Heynemann, to the question of your fee. You said you had received part of your fee. Is the balance of your fee in anywise contingent upon the success or failure of the respondent in this case?
- A. I cannot tell you anything about the balance of my fee because I don't know. I expect to get a fee, or I expect to get the balance of my fee, at the conclusion of the case, no matter how it goes.
- Q. You have no understanding concerning it at all? A. I have no understanding, no.
- Q. You still decline to tell us how much you have received on account?
- A. I really cannot see why that is any of your concern, Mr. Frank, why you should ask that question at all. I cannot see any bearing on that question.
 - Q. I do not understand that you are the judge of

(Testimony of Lionel Heynemann.) the materiality of the testimony.

- A. The reason I say that, Mr. Frank, is that I was very much surprised that you should ask that question at all. It casts a sort of reflection on me when you ask it.
 - Q. I am sorry.
- A. In connection with what went before. I do not believe you wilfully want to offend me, but it bore a very nasty inference.
- Q. I am not doing anything wilfully in this case, Mr. Heynemann. [1872—1784]
 - A. I must say that I resented it at the time.
- Q. That may be, and I am sorry if you feel that way, still if I consider it material, and I consider it my duty to ask the question, that would be the end of every consideration with me. Now, I am asking you to answer that question, if you will.

Mr. McCLANAHAN.—I shall have to make the same objection that it is immaterial, and instruct the witness not to answer.

A. Am I instructed to answer?

Mr. McCLANAHAN.—No, you are instructed not to answer. I suggest it.

Mr. FRANK.—You heard what the Court said about these things this morning?

Mr. McCLANAHAN.—Yes. And I noticed you did not bring that matter up before the Court. I was waiting for you to do so. As you said he refused to answer a question, I assumed at the time that was the question you referred to. You said you were going to refer it to the Court, and you had the opportunity.

I imagined from the remark that the Court made at the time that he would compel the witness to answer all material questions that you came to the conclusion this was not material and therefore did not raise it with the Court.

Mr. FRANK.—That was not the reason I did not raise it with the Court. The discussion had taken a more extensive line than I had anticipated, and that was the reason I did not want to raise any more questions at that time.

- Q. Are we going to get an answer, Mr. Heynemann q
 - A. I would prefer not to answer that question.
- Q. Very well. Now, I take it, Mr. Heynemann, that on your direct examination, where you have made statements about certain work having been done, and certain work not having been done, [1873—1785] or certain work being compensation for other work, that those statements were made as the result of what someone else had told you?
- A. No, sir, that is not entirely correct. The compensation work, I think, is a matter of record that was given us in a paper of 15 items which we have called general specifications. I don't know how you entitled the paper here.
- Q. Just show us the paper that you refer to. There are the exhibits. (Pointing.)
- A. In a paper of 15 items that I call the contract and have referred to as the contract in several instances the compensation was marked, that is to say, that one piece of work should be an offset to the way

(Testimony of Lionel Heynemann.) this specification then read originally.

- Q. That is, you mean you were furnished with a paper? A. Yes, sir.
 - Q. Which is not now in evidence here?
 - A. I don't know whether it is in evidence or not.
 - Q. Look it through and see.

Mr. McCLANAHAN.—I will that it is not, to save the witness the trouble.

- Mr. FRANK.—Q. You were furnished with a paper, which is not now in evidence here, which specified that certain work was to be acted upon as compensation for other work stated in the specification; is that right? A. That is right.
 - Q. Who furnished you with that?
 - A. I think Mr. McClanahan furnished us with that.
- Q. Is that the only exception, then, that you wish to make to the statement that I have made?
- A. No, sir, with reference also to a number of items appearing in the billhead entitled [1874—1786] "Respondent Kinsman Exhibit No. 2," we went through these items with Mr. Kinsman and Mr. Klitgaard and found where the work, as specified in that billhead, was covered by extra bills that had been rendered, and which we have called schedules 2 to 10.
- Q. That is, you and Mr. Kinsman and Mr. Klit-gaard sat down in the office, went over that list, and went over these schedules, and between you, segregated what you thought should apply to those schedules 2 to 10; is that right?
- A. No, sir, we did not sit down in the office. We were aboard of the ship. A number of those sched-

(Testimony of Lionel Heynemann.)
ules are so plainly covered by the schedules that they
need no advice at all from the outside to show that

they are covered by the schedules.

Q. Then those are your two sources of information. One is what Klitgaard and Kinsman told you, and the other is your own conclusion drawn from a reading of the billhead items, and a reading of the bill as rendered; is that right? A. And our—

Q. So far is it right?

A. So far it is not right. You say only-

Q. Go on.

A. It is also a matter of common sense to distinguish in a number of cases between the billhead items and the schedules.

Q. That common sense is your judgment, is it not?

A. Yes, sir, and also from what we learned by our own observations on board of the ship.

Q. There is nothing from your observation on board of the ship that will enable you to determine what part of that work was done under an agreement, and what part of that work [1875—1787] was done under a time and material proposition, is there?

A. Yes, sir, there is.

Q. How?

A. Take, for instance, the stack contract.

Q. Very well.

A. If one of the items reads to repair the stackguys, I do not think that one needs any statement from any of the crew of the ship to know that that item would be plainly covered by a schedule that reads that a stack should be furnished and installed.

- Q. But you said that your observations aboard of the ship enters into that. You do not mean that now, do you? A. Yes, sir, I do mean that.
 - Q. Then how? A. I have stated how.
- Q. All right; we will accept that as your statement. Anything else?
 - A. Well, I cite that as an instance.
- Q. What steps did you take, Mr. Heynemann, to examine the face of the low-pressure valve?
 - A. To examine what?
 - Q. The face of the low-pressure valve?
 - A. We took no steps at all.
 - Q. You did not examine it then? A. No, sir.
- Q. How did you know whether the H. P. and I. P. shoes were reconstructed or not?
- A. We were told that the new shoes had been made instead of being reconstructed.
- Q. How much Challenge metal did you allow for on those shoes?

 A. I don't remember.
- Q. How did you arrive at the amount of Challenge metal that was used in those shoes?
- A. We were told the amount of Challenge metal that was used on that. I believe there was an allownce to be made for the amount of metal to be used on those shoes.
 - Q. That is, you were so told?
 - A. Yes, sir. [1876—1788]
- Q. How much did you allow for the bronze on the low-pressure eccentric straps?
- A. I happen to remember that figure. We allowed 300 lbs. for bronze.

- Q. At what price?
- A. I believe it was 35 cents.
- Q. How do you happen to remember that figure?
- A. Because it was a subject of recent conversation not very long ago.
 - Q. Between who?
- A. I think I heard Mr. Kinsman make that statement.
 - Q. Make what statement?
 - A. The 300 lbs. of bronze were to be allowed for.
- Q. And it was upon the suggestion of Mr. Kinsman, that you made that allowance? A. Yes, sir.
 - Q. I mean as to the number of lbs.?
- A. As to the number of lbs. He did not say anything about the price, but I had in mind that that is what we allowed, 35 cents.
- Q. Where does that allowance appear in this "Agreed between Mr. Gardner and L. H."?
 - A. Do you happen to remember the item number?
 - Q. No. 5 of the specifications?
- A. Yes, sir, I know it is No. 5 of the specifications, but that is not what I mean. I mean the number of the item of the billhead.
- Q. I do not apprehend that you will find it itemized in that way on the billhead?
- A. I do not believe that I will find it itemized in that way, but one of the items of the billhead refers to the matter spoken of, that is, to the low-pressure eccentrics. I can read it all through and see. (After reading.) On item 132 reading, "Remove the low-pressure straps and bore [1877—1789] same out to

suit eccentric sheaves," I remember that we did not figure at all when we made this estimate on the bronze on account of its being covered by item 5 of the general specifications. We figured on it, however, later on.

- Q. What do you mean; that you did not allow the bronze to us at all?

 A. Not at this time.
 - Q. Where did you allow it to us in that schedule?
 - A. In this schedule?
 - Q. Yes. A. Not at all.
 - Q. Not at all?
 - A. Not at all in this schedule; no.
- Q. Meaning, now, in the schedule marked, "Agreed between Mr. Gardner and L. H."?
 - A. We did not allow for it at all.
- Q. Where did you allow for it? In this figure of \$22,000 odd?
- A. I think I informed you yesterday, that subsequent to the vessel going on the dock, and it may possibly have even been before that, we had a meeting with Mr. Kinsman, and went over such items as we thought had not been either properly allowed for, that is to say, in which the United Engineering Works had not received sufficient credit by us for work done and material furnished, and also over such items as we thought we had been too liberal with.
- Q. I had forgotten about that, Mr. Heynemann. Do you mean to produce that schedule to-day?
 - A. Yes, sir.
 - Q. Have you it with you?
 - A. Yes, sir, I have it with me.

- Q. Will you kindly let me have it?
- A. There it is (handing).
- Q. What do these two papers represent? The different sides of the account, or are they continuous?
- A. Those two papers represent the credits due the Matson Navigation Company on one side, and the United Engineering [1878—1790] Works on the other, in reference to the items that I have just spoken about, or in connection with the items that I have just spoken about.
- Q. Which column is the Matson Navigation Company's side?
- A. The first column is the Matson Navigation Company's side and the second column is the United Engineering Works.
- Q. Do I understand from this, Mr. Heynemann, that on items 6 and 7 you have made an error in your original estimate of \$450 out of \$500?
- A. No, sir, it is not an error. It is only a different way of looking at the same thing. In our original estimate we figured on items 6 and 7 as an entire extra and on reconsideration we found that we were doing the Matson Navigation Company an injustice to so consider it, and we then gave the Matson Navigation Company credit for \$450.
 - Q. For what reason?
- A. For the reason that we considered the floorplates, to which this item refers, I believe, items 6 and 7 were covered by item No. 1 of the general specifications, and also by the contract under which

(Testimony of Lionel Heynemann.) the United Engineering Works engaged themselves to supply and install a circulator.

- Q. How did you come to reconsider that?
- A. In discussing it.
- Q. With whom?
- A. I think with Mr. Kinsman and Mr. Gardner.
- Q. Mr. Diericx?
- A. I don't remember that Mr. Diericx had anything to do with it; I don't think he did.
 - Q. Anybody else?
- A. Mr. McClanahan was present. I think we discussed it with Mr. McClanahan.
- Q. Did he make any suggestions respecting it? [1879—1791] A. Who?
 - Q. Mr. McClanahan. A. He may have.
 - Q. What is the \$525 that follows that?
- A. We did not subtract the whole item of \$500 from the estimate of extra work because we did not consider that it should all be deducted. We allowed an item, I think, of \$25 for the handling of plates, and item 7 we allowed for raising the platform and building a little step over the shaft between the engine and the thrust-shaft.

(An adjournment was here taken until to-morrow, Wednesday, November 8th, 1911, at 10 A. M.) [1880—1792]

Wednesday, November 8th, 1911.

LIONEL HEYNEMANN, cross-examination resumed.

Mr. FRANK.—Q. Mr. Heynemann, there is a charge in that list for scaling the boilers. I presume

(Testimony of Lionel Heynemann.)
you could not get inside the boilers, could you?

- A. No, sir; we did not.
- Q. And you had no means of ascertaining the amount of scaling that was done?
- A. We acted on information that we received on the ship.
 - Q. What kind of information?
- A. I believe it was Mr. Kinsman who told us about it.
 - Q. What did he tell you about it?
 - A. I don't remember.
 - Q. You don't remember what he told you?
 - A. No, sir.
- Q. You don't remember how many hours you allowed for that? A. No, sir.
 - Q. Or any details? A. No, sir.
- Q. In fact, Mr. Heynemann, I understand from your testimony that that is the condition with reference to each one of these items; you are unable to give any details at all.
- A. I do not admit that at all. If you will go through each item I will be able to tell you what I remember and what I do not.
- Q. I have tried to get the details from you, Mr. Heynemann. So far, I have not got anything.
- A. I think you have a great many details with reference to the tank-tops. You examined me about the tank-tops, among others, and I think you have a good many details.
- Q. Yes, but I have not the details which you say are necessary to make the figures.

- A. You don't expect a man to remember the figures? [1881—1793]
- Q. I will not discuss that question with you, but if you will select the items where you can remember the details which are necessary to make the figures I wish you would do it. A. I could not do that.
 - Q. On none of that?
- A. I do not say that. If you will ask your questions I will do the best I can to answer them.
- Q. You appreciate the fact that we would be wasting a great deal of time in that way. You have all the items before you, and if you will go through them and indicate to me which particular ones of them you can give me the details of which make up that figure, we will not only save time, but I think we will get through it more intelligently.
- A. Each item, particularly the larger items, because I do not suppose the five dollar item will play very much of a part; on each of the larger items there are so many figures with reference to material and different classes of material, and with reference to labor and different classes of labor, that it would be impossible for me to do what you are asking.
- Q. Mr. Heynemann, you said something on your direct examination about the arbitrary nature of Captain Matson. Have you had a hand in other disputes in which he has been engaged?
- Mr. McCLANAHAN.—I want to correct counsel. I do not think Mr. Heynemann made that statement, though it does appear in "Libelant's Exhibit Heynemann No. 3."

Mr. FRANK.—The record will show whether he did or not.

Q. Just answer the question, Mr. Heynemann.

A. Will you kindly repeat the question.

Mr. FRANK.—Read the question, Mr. Reporter. (The Reporter reads the question.)

Mr. McCLANAHAN.—I object to the question upon the ground that it is incompetent, irrelevant, immaterial and no bearing [1882—1794] whatever on the issues involved in this suit.

Mr. FRANK.-Q. Go on, Mr. Heynemann.

A. In reference to the statement that you refer to, I would like to bring it out that when I was asked to serve on this case I did say that my sympathies were more to the United Engineering Works than they were with the Matson Navigation Company, and my principal reason for so stating was that I was more of a shopman, and had more sympathy with the shops, and with the men that were managing the United Engineering Works than I had with the steamship company.

Q. Now that you have got done with that, please answer the question that was asked of you.

A. I will come to that, but I want to premise my statement.

Q. I think I am entitled to a categorical answer and not a lecture on the subject. It is capable of an answer yes or no. Just read the question, Mr. Reporter.

(The Reporter reads the question.)

A. I have had a hand in one dispute that Captain

(Testimony of Lionel Heynemann.)
Matson was connected with.

Q. That is, he had a dispute similar to the present one, with the Union Iron Works, did he not?

Mr. McCLANAHAN.—I object to the question as immaterial.

A. There was a question with reference to the steamer "Rosencrans" in which I was asked to serve for the Union Iron Works and it was in reference to a repair bill on that steamer which, at the time, I understood was owned by the Matson Navigation Company.

Q. Have you known of any similar disputes in which Captain Matson has been engaged?

A. Not that I can remember now.

Mr. FRANK.—I think that is all. [1883—1795]

Redirect Examination.

Mr. McCLANAHAN.—Q. Mr. Heynemann, you have referred to a reconsideration of certain items of this repair work of recent date, since your estimate of April the 29th. Will you state why the balance in favor or against the United Engineering Works as found by your reconsideration of these items that I have referred to was not made a part as a revision of your estimates of April the 29th.

A. It was not made a part because the items balanced so nearly within a very small amount that we did not consider it necessary to change the estimate.

Q. In your conclusion in that matter, did the fact of your having made an arbitrary allowance of \$2,000 for overtime and bonus cut any figure at all?

Mr. FRANK.—I suggest that that is leading.

A. I am not sure that I grasp the question. Will you kindly read it, Mr. Reporter?

(The Reporter reads the question.)

Mr. McCLANAHAN.—Q. I mean, in your conclusion not to change your estimate. Now, read the question to the witness again, Mr. Reporter.

(The Reporter reads the question.)

- A. I did.
- Q. Why?
- A. Because we thought it a very liberal allowance, and that really every item of the allowance that we made on the extra work should be credited with its *pro rata* of the overtime.
- Q. What has that last statement to do with this question of debit or credit as found by recent investigation?
- A. I do not know that I quite understand your question, Mr. McClanahan. [1884—1796]
- Q. Go back and read the record, Mr. Reporter. Let us get this clear. (The Reporter reads from the record.) I want to know what that latter statement has to do with the question.
- A. I will say in the consideration of the entire matter of a balance, either for or against, that we did not figure in any overtime. We did not consider the overtime.
- Q. I am afraid we do not understand each other, Mr. Heynemann. My question to you is directed solely to this recent investigation of certain items which you say you reconsidered on new information.
 - A. Yes, sir.

Q. Where there were debits and credits one way or the other on those items. I want to know if this \$2,000 had any part to play in your determination not to change by reason of this new investigation your original estimate. We are not understanding each other because you are talking about how you have apportioned that \$2,000, or how it should be apportioned. You can very easily see that has nothing to do with the inquiry I am after.

A. All that I can say is that in the reconsideration of these different items that were mentioned to us principally by Mr. Klitgaard, the figure \$2,000 played no part.

Q. Played no part? A. Played no part.

Q. If there was a balance in favor of the United Engineering Works on the reconsideration of those items, why did you not allow it to them?

A. Because we considered \$2,000 was a very liberal estimate.

Q. We are still at cross-purposes. If this estimate of your reconsideration of the several items had nothing to do with the overtime or bonus, did it—

A. No, sir. [1885—1797]

Q. Then, why are you speaking of the \$2,000, which I understand to be the bonus and overtime item?

A. Yes, sir.

Q. With reference to these debits and credits?

A. We did not consider that item in connection with the credits and debits in the matter under consideration.

Q. Then I am asking you now why it was if there

was a credit in favor of the United Engineering Works as the result of this reconsideration of certain items, why it was you did not give them credit for it in your original estimate of April 29th.

- A. We did give them credit on our original estimate of April 29th.
- Q. Your original estimate of April 29th remains the same to-day, does it not? A. It does.
- Q. Since April 29th, you have done certain revision work, have you not, on certain items? A. Yes, sir.
- Q. And you say there is a credit one way or the other? A. Yes, sir.
- Q. What have you done with that credit? You have ignored it, have you not?
 - A. We have ignored it.
 - Q. Why?
- A. Because it did not amount to anything. It was a balance of credits and debits which so closely balanced each other that we did not change our estimates. We did not consider it necessary to change our estimates.

Mr. McCLANAHAN.—Mr. Heynemann has been examined on his cross-examination to some extent on this document, consisting of four sheets of paper, headed "Agreement between Mr. Gardner and L. H." I want to offer that in evidence, and ask that it be marked Respondent Heynemann Exhibit No. 4.

(The document is marked "Respondent Heynemann Exhibit No. 4.") [1886—1798]

Q. You have been questioned about the "Rosen-crans" dispute and repair bill? A. Yes, sir.

- Q. Who did you act for in that matter?
- A. For the Union Iron Works.
- Q. And against the Matson Navigation Company?
- A. And against the Matson Navigation Company.
- Q. And your decision in that matter was against the Matson Navigation Company? Have I asked you that? A. You have not.
 - Q. I will withdraw that question.

Mr. FRANK.—You might as well persist in it because I shall ask it myself, and it will save me the trouble.

Mr. McCLANAHAN.—I will let you ask it.

- Q. Mr. Heynemann, you on your cross-examination have referred to various conditions that were told you, with respect to the work. I will ask you whether in making your estimates you acted on that knowledge?
- A. On that knowledge, and on what we saw ourselves.
- Q. And where the knowledge was of matters that you did not see you acted on that knowledge?
 - A. Yes, sir.
- Q. You have been asked whether you examined the face of the low pressure valve. You replied that you had not. Was an examination of the face of the low pressure valve necessary in order to intelligently estimate on the work that was done?
 - A. It was not.
- Q. I show you "Respondent Matson Exhibit No. 1," which is the letter of the United Engineering Works, addressed to the Matson Navigation Com-

pany, referring to tank-top work, and I will ask you if the proposal as contained in that letter covers the same amount of a greater amount of work than was done on the tank-top as you saw it and knew it at the time of your examination. [1887—1799]

- A. The letter mentioned a proposal to do more work than was actually done, inasmuch as it proposed to replate the entire top of the double-bottom tank on one side only from shaft alley out to margin angle, and from shaft-alley bulkhead to next bulkhead directly forward of same. The plating was not completed from shaft-alley bulkhead to next bulkhead directly forward of same.
- Q. With reference to the extent of the work stated in this letter, and the work as actually performed, that is, the difference between the two, what have you got to say?
 - A. That we only figured on the work as done.
- Q. That is not an answer to my question. Read the question, Mr. Reporter.

(The Reporter reads the question.)

- A. That is all that I have to say, that we only figured on the work that we saw.
- Q. That does not answer my question. Was the difference a material difference or an immaterial difference?
 - A. It was quite a material difference.
- Q. That is an answer to my question. How material was it? What did it involve? I understand there was an omission to remove the after plate and the forward plate.

- A. It involved just those two items you have mentioned.
- Q. How extensive would be the work, and of what character would be the removal of those two plates?
- A. With reference to the removal, and the refurnishing of the plate forward of the after bulkhead, and aft of the forward bulkhead, it would involve considerable extra work and labor if the entire tank-top had been removed, and if these plates had to be removed. [1888—1800]
- Q. Would the removal of those plates be different, or the same relatively as the removal of the other plates?
- A. The surface covered by the forward plate that was not removed was considerable, and I think considerably larger than the surface of any of the other plates.
- Q. Do you know whether those plates were attached to the bulkhead?
 - A. They were attached to the bulkhead.
 - Q. Then answer my question as last asked.
- A. These plates being attached to the bulkhead would naturally cause considerable work to be done in order to replace them.
- Q. Would that work be in addition to the work that would have to be done if they were not attached to the bulkheads? A. Yes, sir.
- Q. In making your estimate, how did you determine the thickness of the plates on the tank-tops and the size of the angle-iron used. I think you have answered the question, but I want to make it clearer.

- A. I believe that I looked up the matter in Lloyd's, and I figured up the scantling of the particular vessel, and I looked it up in Lloyd's, in which the top of the ballast-tank is mentioned particularly.
- Q. What proportion of the \$2,000 arbitrary allowance for bonus and overtime would properly apply to the \$800 figured on the tank-top?
- A. It would be in the *pro rata* of the extra work that is to say, \$800 as a numerator, and \$6,280 as a denominator to represent the portion of the \$2,000 that would properly be added to the amount specified which in this case is \$800, so as to get at the actual allowance.
- Q. That is a matter of simple computation. Will you please do it for me? The total amount of the extras as shown by item Exhibit 4 is \$6,280.50. [1889—1801]
- A. This calculation is so simple, yet I do not care to make it, because I do not want to make a mistake.
- Q. Could you not make it and then say that that would be an approximation?
- A. I can give you an approximation—I prefer not to give you an approximation. I feel a little nervous this morning, and as the matter is so simple I prefer to let somebody else figure it out.
- Q. The method of Apportionment would apply to each one of the 140 items of extra work as shown by your Exhibit 4?

 A. Yes, sir.
- Q. In your direct examination you referred to item 9 as shown by "Kinsman Exhibit No. 2," as an extra; have you anything further to say on that matter now?

- A. I would like to state that I think it should properly have come under the reassembling of the engine with the exception of some small angle-irons that were fitted, I believe, to the top rim of the iron guards, and also I believe there was a pipe flange riveted to the bottom of the floor as a drain.
- Q. And it was for that work that you have allowed how much money? A. \$40.
- Q. Do you remember whether those guards referred to in item 9 of "Kinsman Exhibit 2" were repaired or renewed?
- A. We were informed that they were repaired and not renewed.
- Q. What examination did you make of those guards, to verify that, if any?
- A. We examined them and gave them as close an examination as we thought proper.
 - Q. What did the examination result in?
- A. The examination resulted in our opinion that the plates were not renewed.
- Q. I am not speaking of the plates; I am speaking of the guards. [1890—1802]
- A. The guard-plates. The guards only consist of the plates. We came to the conclusion that those plates had not been renewed.
- Q. Mr. Heynemann, in "Libelant's Exhibit Heynemann No. 3," on the first page, there appears this statement, referring to a conversation with me: "Told him I was a shopman and rather sympathized with the U. E. Works, and had found Matson very arbitrary; he said, "Well, we want your opinion, any-

how.' "Do you remember whether that was the extent of the conversation which led to your employment? A. I remember it was not.

- Q. What was the balance of the conversation?
- A. I remember that I told you besides mentioning that I was in sympathy with the United Engineering Works and with the managers whom I considered friends, that I was much more of a shopman than I was a man to be selected by the owners. In fact, I used the expression that I was the wrong man for your side, that you had better get somebody else.
- Q. Did you or did you not have in mind at that time your former connection with the Matson Navigation Company with reference to the "Rosencrans"?
- A. I also had that matter in mind at the time, and I will further state that so far as I remember you said, "We want you anyhow," and then I made the remark, "If after my statement to you you still want me, I am then willing to serve."
- Q. Did this sympathy as a shopman which you have referred to follow you through the work of estimating this job?

Mr. FRANK.—That is not only leading, but it is a very profitable, self-serving proposed piece of testimony, and I object to it. [1891—1803]

A. I tried to make a fair and reasonable estimate and tried to discard everything else from my mind.

Mr. McCLANAHAN.—Q. Who was the actual writer of the letter of April 29th, 1910, introduced in evidence here as "Libelant's Exhibit Heynemann

No. 1"? A. Will you let me see the letter?

- Q. I mean by that, who dictated the letter (handing)?
- A. I dictated the letter in Mr. Gardner's presence, and Mr. Gardner frequently changed, or frequently suggested changes in the subject matter.
 - Q. In the dictation?
 - A. In the dictation, yes, as we were dictating.
- Q. I understand you do not now remember where you got the statement which is contained in the last 5 lines of the letter, on the first page?
- A. No, sir; we did understand that to refer to the crank-shaft.
- Q. That is not what I am referring to. I am asking you where you got that statement, if you know, about the contract.
 - A. I could not tell you; I don't remember.
- Q. I understand it was that statement which led to the redrafting of the letter of April the 28th?
- A. Yes, sir, and also a palpable error that we made in this way, that we had received certain information that certain bills had been paid, and we afterwards found those bills had not been paid.
- Q. The letters remain the same on that subject if you will examine them. Now, Mr. Heynemann, referring to these unpaid bills, as you stated them in your letter of April 29th, amounting in the total to \$937.07, they are included in your present estimate of \$22,922.56? A. They are. [1892—1804]
- Q. But at the time that the letter was drafted you thought that those bills had been paid?

- A. I thought so.
- Q. I refer you to item 98, "Kinsman Exhibit No. 2," and ask you if you wish to make any change with reference to your former statement.
- A. Item 98, I remember being confused in that item. We did figure on that as an extra.
 - Q. And did not apply that to Schedule 7?
 - A. And did not apply that to Schedule 7.

Recross-examination.

Mr. FRANK.—Q. I understand, then, Mr. Heynemann, that in the "Rosencrans" dispute the decision was against Mr. Matson?

- A. I did not say so.
- Q. I am asking you. That is the form in which I am asking you the question.
- A. A certain bill was charged by the Union Iron Works and there were certain deductions made in this bill.
- Q. But they were immaterial compared with the amount which was claimed.
- A. It was not what you would call a large reduction. My memory now is a little hazy on the subject, but I am sure that the reduction was not what you would call a very material one, not a very large one.
 - Q. Not what was claimed by any manner of means?
 - A. How do you mean, what was claimed?
 - Q. What was claimed by Matson?
 - A. I don't know what Captain Matson claimed.
 - Q. You knew what the dispute was?
 - A. Yes, sir.
 - Q. You knew what amount he was claiming as an

(Testimony of Lionel Heynemann.) overcharge? A. I did not. [1893—1805]

Q. You considered at that time that the decision was practically against Captain Matson?

A. Yes, sir; I did consider that the decision was against him.

Mr. FRANK.—That is all.

Mr. McCLANAHAN.—That is all, Mr. Heynemann.

Mr. FRANK.—Now, I move to strike out the estimate of Heynemann and Gardner presented as evidence in this case upon the ground that the same is based on hearsay.

Mr. McCLANAHAN.—As I cannot get hold of Mr. Gardner just now, I think I will do a little testifying myself.

Mr. FRANK.—All right.

[Testimony of E. B. McClanahan, for Respondent.]

E. B. McCLANAHAN, called for the respondent, sworn.

The WITNESS.—I am the attorney for the respondent in this case. The date of my employment I do not exactly remember. Prior to June 10th. I drew the amended answer. At the time of the service of the amended answer on the libelant's counsel, on the 17th of June, 1910, I received a telephone shortly after the service from Mr. E. L. Putzar in response to a letter which I had previously written to him, a copy of which letter reads as follows—

Mr. FRANK.—What is the purpose of this testimony, Mr. McClanahan?

Mr. McCLANAHAN.—The purpose of this testi-

mony, Mr. Frank, is to rebut the inferences that have been injected into the case by you bearing on the question of our failure to call in this case Mr. E. L. Putzar, who was our employee on this work as a time-keeper. The letter reads as follows: [1894—1806]

"June 10, 1910.

Mr. E. L. Putzar,

 ${\it c}/{\it o}$ United Engineering Works.

224 Spear St.,

San Francisco.

Dear Sir:-

We represent the Matson Navigation Co. in a suit brought for repair work on the S. S. 'Hilonian,' and by the 15th inst. we must have information in regard to certain items of the bill rendered for this work. As we understand you had charge of the time kept for the ship during this work, it seems likely that you can be of assistance to us and we should be pleased, therefore, to have you call at this office on or before next Wednesday.

We address you c/o United Engineering Works, as we have been told that in all likelihood they would know of your present address.

Trusting that we are not inconveniencing you by our request, we remain,

Respectfully yours,

McCLANAHAN & DERBY,

EBM. Attorneys for Matson Navigation Co."

Mr. Putzar said that he had only just received the letter, because it had been addressed improperly to the United Engineering Works, or in their care, and

he asked me what I wanted. I am not attempting now to give the exact words used, but the gist of the conversation. I told him I had wanted him to assist me in ascertaining certain facts in connection with the case and requested that he call on me. He replied that [1895—1807] he did not care to call on me; that at the proper time, if called upon, he would give his evidence in this case, and it was not necessary for me to interview him. It seemed from what he said—

Mr. FRANK.—I object to your conclusions, Mr. McClanahan.

Mr. McCLANAHAN.—Then I will state more definitely. I asked him if there was any difference between himself and Captain Matson. The gist of his reply was that he did not like Captain Matson's treatment of him in failing to give him a recommendation to the Portland Steamship Company, I think. Since then I have had no communication with Mr. Putzar whatever, nor do I know where he is. In regard to the redrafting of the letter of April 29th, 1910, I will say that that was redrafted solely at my suggestion and for the reason that I did not understand the proviso contained on the first page, nor could I learn from either Messrs. Gardner or Heynemann where they had secured that information. I did, however, when the matter was under discussion refer them to a report made to me by Mr. Diericx at the time of my employment, in which that proviso was contained—

Mr. FRANK.—I object to any importation of that

sort into the testimony. So far as your present purpose or any legitimate purpose may be concerned, it is sufficient that you call their attention to it and have it changed. Any report or papers of Mr. Diericx on the subject is utterly immaterial. Mr. Heynemann has testified on the stand here that he does not now know where he got the information.

The WITNESS.——together with the further statement showing clearly that the proviso referred to the possible non-removal of the crank-shaft. I asked Mr. Gardner if he had [1896—1808] that report in his possession or a copy of it, and he said he thought he did have it.

Cross-examination.

Mr. FRANK.—Q. You never made any attempt to locate Mr. Putzar after that, or to call him into the case, did you?

A. I never made any attempt to call him in the case, Mr. Frank, after that.

Q. You did, however, then, make an attempt to locate him? A. No, sir, I never have.

Q. Do you know whether the Matson Navigation Company now know where he is? A. I do not.

Q. I remember upon—

A. Let me modify that. I heard from someone—I rather think it was Mr. Klitgaard or Mr. Kinsman—that Mr. Putzar, during the progress of the case, was in the city on a certain day, but who it was that gave me the information I do not remember.

Q. You never directed your clients, or anyone to

make any endeavor to get into communication with him?

- A. I think I did ask Mr. Diericx to see if he could locate Mr. Putzar.
 - Q. Is that the extent of the endeavor to locate him?
- A. Well, I know that I never received any definite information from Mr. Diericx as to where he was.

(A recess was here taken until 2 P. M.) [1897—1809]

AFTERNOON SESSION.

[Testimony of Fred A. Gardner, for Respondent.]
FRED A. GARDNER, called for the respondent, sworn.

Mr. McCLANAHAN.—Q. What is your name, age and business?

- A. Fred A. Gardner; age, 45; business, consulting engineer and marine surveyor.
 - Q. How long have you been engaged in business?
 - A. About four years; approximately four years.
 - Q. Whereabouts?
- A. In San Francisco; with an office in this building.
- Q. Will you please state the experience that you have had that has fitted you for the business, and also what business you have done since you were so fitted.
- A. In connection with the business I first entered as an apprentice at the Aetna Iron Works in San Francisco. Later I was in the shops of the Northern Pacific at Sprague, Washington. I was also connected with the Rice Engine Works establishment here in San Francisco. I later put in the necessary

apprenticeship in the matter of oiling and tending water and going through the various stages in connection with sea service, to enable me to obtain first a third assistant's license as an engineer; later a second assistant's license and a first assistant's license, and finally an unlimited chief engineer's license for ocean-going vessels. I was then connected with the Market Street Railway Company as Chief Engineer of the Bryant Avenue power station for a matter of 5 or 6 years. I may say my experience at sea up to the time I received my chief engineer's license was approximately six years. After leaving the Bryant Street power station I was engaged by the Union Iron Works in connection with the completion of the [1898—1810] Japanese cruiser "Chitose," and proceeded to Japan later in this vessel as a guarantee for the Union Iron Works, the contract being for one year, but succeeding in procuring the final payment of \$47,000 four months before it was due. I was released from the "Chitose." I went down to Hong Kong, for the purpose of looking over the shops and dry-docking facilities in Hong Kong, as Hong Kong was considered probably the largest repair-shop in the world, to familiarize myself with the repair work, and on returning to San Francisco I was given the position of assistant to the engineer in chief.

Q. In what works?

A. In this capacity I had particular charge of repair work in marine matters; also some shore work in connection with the power station such as the North Beach power station and the station known

as Station A, belonging to the San Francisco Gas & Electric Company at that time.

- Q. What company are you referring to as being assistant to the engineer in chief?
- A. I was assistant to the engineer in chief of the Union Iron Works. Later I was given the position of engineer in chief of the Union Iron Works. My experience there was very largely connected with repair work, and I was with them about seven or eight years, I think. I do not recall exactly just the time. After severing my connection with the Union Iron Works I opened an office as a consulting engineer with the encouragement of Lloyds' agency, who stated that they would probably be able to give me a great deal of their business, which they have done up to the present time.
- Q. Have you had any experience since opening an office, as a consulting engineer, in the matter of repair work? [1899—1811]
- A. The principal part of my business has been on repair work.
- Q. How long a period of time did your experience extend over that fitted you for the profession of a consulting engineer?
- A. Well, from the time I was about 17 years old—between 16 and 17—I made the matter of engineering a study and practiced it as well.
- Q. What, Mr. Gardner, was your experience at Hong Kong?
- A. I occupied my time in visiting the drydocks and repair-shops. Having procured a letter of introduc-

tion to Mr. Gillis, who was then the manager of the principal works in Hong Kong, I had a very good opportunity to see their methods of handling repair work, but my object in being sent to Hong Kong was principally for the purpose of making the acquaintance of steamship people.

- Q. Were you familiar with the market value of material and labor used in repair work in the year 1909? A. I was.
- Q. You know this is a suit brought by the United Engineering Works against the Matson Navigation Company for repair work on the steamship "Hilonian"? A. So I understand it.
- Q. I show you the libel filed in this case and ask you to examine the schedules annexed thereto and marked or stamped in red ink up in the right-hand corner.
- A. Schedule No. 1. Do you wish me to read through this for the purpose of identification?
 - Q. I wish you to identify them if you can.
- Mr. FRANK.—The witness has no doubt been through them already. (Addressing the witness.) Have you not, Mr. Gardner?
- A. I don't know if I have these particular ones; I have seen some that have the general appearance of these. [1900—1812]
- Mr. McCLANAHAN.—Q. You need not read through the first schedule. I will hand you "Kinsman Exhibit No. 2," and ask you if you can identify that schedule.
- A. I notice an alteration here in lead-pencil in item 37, "Supplied and secured plates around stern-

frame," and something that I cannot make out.

- Q. That is the lead-pencil alteration?
- A. The lead-pencil alteration here, "And lineplates around stern tube bore," it seems to me it should be. This appears to be a copy to the best of my knowledge of what I understand Schedule 1 to be.
- Q. You may assume that "Kinsman No. 2," which you have just laid down, is a copy of Schedule No. 1 in the first three pages. Now, pass on to Schedule No. 2.
 - A. What is the question that you asked me, please?
 - Q. Can you identify that?
- A. This is a bill, a copy of which was given to me at one time.
 - Q. Pass to No. 3, can you identify that?
- A. That is also a copy of a bill that I have seen before.
 - Q. Pass to the second sheet of No. 3.
- A. This is a copy of a bill which, by reference to other bills—I don't recall just now which one—we decided was a duplicate charge. Either this or the other one is a duplicate charge. I do not recall which.
 - Q. Pass on to No 4.
- A. I recognize this as a bill of which I have had a copy.
 - Q. Pass to No. 5.
 - A. The same remarks apply to this bill.
 - Q. Pass to No. 6. A. And to this, also.
 - Q. Pass to No. 7.
 - A. I had a copy of this one, also. [1901—1813]

- Q. Pass to No. 8.
- A. I had a copy of this one also.
- Q. Pass to No. 9.
- A. I had a copy of this one also.
- Q. Pass to No. 10.
- A. I had a copy of that one also.
- Q. Aside from assuming, Mr. Gardner, that "Respondent Kinsman Exhibit No. 2" is a copy of Schedule 1 in the first three pages, you may assume in the further course of your examination, that the paper which I now hand you entitled "Respondent Saunder's Exhibit No. 1." is a copy of specifications prepared by the respondent in this case and submitted for bids to the United Engineering Works, the libelant. You may also assume that the bid of the United Engineering Works for the work covered by the specifications was accepted, the work to be done for the sum of \$11,749 on a 25 calendar daytime limit. You may also assume that after the work was undertaken by the United Engineering Works that by reason of certain agreements between representatives of the respondent and the libelant certain changes were made in the work called for by these specifications; that the changes so made were agreed to be made without affecting the contract; that there was a change of this character made in the second item of the specifications; that there was a change of this character made in the fourth item, and in the fifth, and in the seventh and in the fourteenth.
 - A. Can I make a note of those?
 - Q. No. I will refer you to them again. You may

also further assume that the "Hilonian" was delivered at the yards of the United Engineering Works, to the libelant, on the morning of the 23d of August, 1909. You may also assume that in the course of the work the vessel was docked on the Marine railway of the United Engineering Works at one o'clock [1902—1814] on the 10th of September, 1909, and left the Marine railway at one o'clock on the 16th of September, 1909. You may also assume that there are six holidays, including Sundays, in the period of 25 calendar days running from the 23d of August, 1909. You may also assume that there is no dispute between the parties in this action over the sum of \$170.06, found on Schedule 2 of the libel; that there is no dispute between the parties in the sum of \$540.61, found on the first page of Schedule 3 of the libel. You may also assume as to Schedule 4, that there is no dispute between the parties as to the first item of \$330, as to the fourth item of \$50, or to the fifth item of \$40. You may also assume that there is no dispute between the parties over the charges found on Schedules 5, 6, 7 and 8; and that there is no dispute as to the charge found on Schedule 9 reading as follows: "To construction of new smokestack, removing old and restoring new, \$900." And that there is no dispute over the charge found on the tenth Schedule of the libel. You may also assume that under the original specifications the crankshaft of the steamer "Hilonian" called for removal under the ninth specification was not removed from the ship. You may also assume that at the time of

the repair work in question being done, the United Engineering Works were under a contract with the Matson Navigation Company to supply and install complete and in running order one circulator, having a 30-inch composition rudder and 8 inches by 6 inches single piston valve engine, all to be complete, coupled up with all pipe connections, valves, etc. Now, Mr. Gardner, showing you "Kinsman Exhibit No. 2," I will ask you if you have ever made an examination of the work specified on that exhibit.

- A. I have made an examination of the greater part of it. You [1903—1815] mean the work on the ship, not as described here, but actually the work on the ship that has been done. I made an examination of the greater part of it.
 - Q. The greater part of what?
 - A. The work on the ship as described by this.
 - Q. Did you do it alone?
- A. I did it alone first, and then in company with Mr. Heynemann.
 - Q. Mr. L. Heynemann?
 - A. 'Mr. L. Heynemann.
 - Q. Who has been a witness in this case?
 - A. Yes, sir.
- Q. Will you please state now just the times as far as you can remember, when you visited the ship "Hilonian" and examined the work which you have referred to?
- A. To the best of my recollection, my first visit to the ship was sometime in January or the fore part of February, 1910. Then between the dates of

March the 13th and 16th, 1910, possibly the 17th, I would not be sure, and in company with Mr. Heynemann, I think. The first was April 22d or early in April, during the time that the vessel was in port at that time. I made several visits with Mr. Heynemann. I think also on one of these visits in April you were on board of the ship. To the best of my recollection I visited the ship again on June 9th when she was afloat out in the bay, at which time, I think, you were also present.

Q. What year was that?

A. 1910. Later I visited the ship on two different occasions, to the best of my recollection, in September, 1911; once while she was in drydock at Hunter's Point.

Q. Does that statement contain a statement of your visits?

A. That is all I can recall at present. [1904—1816]

Q. Prior to the time when Mr. Heynemann and yourself went to the ship, how many times had you visited it alone?

A. It is so long ago that it is very difficult to say positively, but to the best of my recollection it was 5 or 6 times.

Q. And subsequently after Mr. Heynemann had joined you, how many times did you visit the ship?

A. It is very difficult to recall exactly now. I should say about nine times—8 or 9 times, possibly.

Q. What was the purpose of your visiting the ship before the visits made to the ship with Mr. Heynemann?

A. To the best of my recollection, Mr. Diericx called at my office and asked me if I had time to make an estimate, and if I would be willing to do so on certain repairs that had been made on the "Hilonian" by the United Engineering Works as he had recently been engaged by the Matson Navigation Company, as I recall the matter now, and he wanted to find out if the bill as presented was a fair and reasonable charge for the work performed. As I had the time I agreed to make this estimate with the understanding that I should have ample opportunity to examine the vessel and the work that was stated to have been performed as set forth in the hill handed to me.

Q. What bill was handed to you at that time?

A. On the first occasion I think it was only the bill which is known as Schedule 1.

Q. And it was in furtherance of that arrangement that you made these several visits prior to Mr. Heynemann joining you?

A. To the best of my recollection that was the reason for it at that time.

Q. What did you do on these visits made to the ship prior to Mr. Heynemann's accompanying you there? [1905—1817]

A. Well, to begin with, I went aboard the vessel and met the man who was at that time First Assistant Engineer, a Mr. Kinsman, and went over this entire list with him while sitting in a room to see if he was familiar with all of the details of the work.

Q. By this "list" you refer to "Kinsman Exhibit No. 2"?

- A. "Kinsman Exhibit No. 2"—for the purpose of seeing if he could be of any assistance to me in preparing this estimate in the matter of pointing out the work that was actually performed. Deciding that he was very familiar with the work, I then asked him to go over it with me in detail on the ship, got into a suit of overalls, and proceeded to do so, taking the items up, as I recall it now not in the order in which they are shown on this exhibit, but as it was most convenient in going about the ship; rather than to go from the forward end of the ship to see something that was at the after end we simply marked that and later when we were at the after end of the ship we took that matter up.
- Q. What did you visit the ship subsequently for, and what did you do there?
 - A. Subsequently to this particular visit?
 - Q. The first visits?
- A. The subsequent visits were practically of the same nature as the first; aside from going over the list in the First Assistant's room, the time was devoted to examining the different parts of the ship and the different parts of the engines, etc., that were stated to have been repaired, renewed or reconstructed.
- Q. How much time do you suppose was spent by you prior to Mr. Heynemann's collaborating with you in the work?
 - A. I think I have stated already the time.
- Q. You have stated the number of visits made, but we have no [1906—1818] idea how extensive the

(Testimony of Fred A. Gardner.) visits were as to time, whether you were there minutes, or hours, or days.

A. On each of these visits, I believe, as near as I can recall at the present time, I spent an average of 8 hours, possibly more. I think it is safe to say that I averaged that length of time on each visit.

Q. Now, taking up the inspection of the work in connection with Mr. Heynemann, how much time was spent on it by you, and what was the nature of your investigation?

A. Well, I would say that the length of time would average about the same per visit that had been consumed while I was making visits alone. Of course, it is to be borne in mind that this was quite a long time ago and taxing one's memory as to such a length of time, it is a little difficult to recall positively, but it is as I recall it now.

Q. It was a matter of hours, each visit?

A. Yes, sir.

Q. What was the nature of the investigations made with Mr. Heynemann?

A. In going over the work practically in the same manner that I had gone over it alone.

Q. Did anyone accompany you on the occasions when you inspected the work with Mr. Heynemann?

A. We were shown parts of the work, and had some of it described to us that we could not see, by Mr. Kinsman and Captain Saunders, as I recollect it now.

Q. Did Mr. Diericx have anything to do with your inspection of the ship?

A. He had absolutely nothing to do with the direction of my inspection of the ship while alone or in company with Mr. Heynemann. [1907—1819] I only recall his being aboard the ship twice during the visits that I made to her. Once, I think, was on the second visit that I made, and another time was when he was on board with you.

Q. What form did your inspection of this work take, Mr. Gardner? What did you do besides having it pointed out to you and being told about it and seeing it—what did you do on the ship?

A. For the purpose of making estimates, in addition to estimates that we often made on the ship, we took measurements of parts, various sketches, sizes and dimensions.

Q. Did you do estimating on the ship itself at the time you inspected the work?

A. Yes, quite a little; in fact, the estimate was scattered over the time we were on the ship, and later when we would leave the ship and come to my office; a large portion of it was done in the evening.

Q. How was it done, Mr. Gardner—at your office?

A. Why, the items were taken up one after another.

- Q. What items do you refer to now?
- A. On Schedule 2.
- Q. You mean "Kinsman Exhibit No. 2"?

A. "Kinsman Exhibit No. 2," and estimated upon just as we would have estimated were we intending to bid on the work ourselves, with this exception, that instead of estimating the actual cost of the work

allowing for unforeseen contingencies, and applying overhead cost, overhead expenses rather, and a percentage of profit, we simply used the rates as set forth in the bill presented by the United Engineering Works.

- Q. The rates charged for labor and material there? [1908—1820]
 - A. The rates charged for labor and material.
- Q. How did you do the actual figuring? When I say "you," I refer to you and Mr. Heynemann.
- A. I hardly know how to answer that other than we pursued the method that I think is quite usual in regard to estimates of that description. We took an item and arrived at an estimate of the cost by setting down the details on scratch-paper or something of that kind, the length of time that was consumed in one class of labor and the amount of material that was supplied.
- Q. Did you do that separately, or did you do it together?
- A. I made a complete estimate separately, and Mr. Heynemann made another estimate. Then we went over the items in detail, that is, the items individually, not each item in detail necessarily except where we found there was some little discrepancy in our figures, and then we questioned each other as to whether we had allowed for this, that or the other, that might possibly have escaped one man's attention. Then we made our corrections accordingly as to an agreed figure arrived at between the two figures found on that item.

- Q. I show you "Respondent Heynemann Exhibit No. 4," and ask you if you can identify that paper (handing).
- A. This is really our detail estimate of the work performed.
- Q. By "our" you mean Mr. Heynemann and yourself? A. Yes, sir.
- Q. Now, Mr. Gardner, calling your attention to "Saunders Exhibit 1," which is the original contract I have spoken of in my assumptions, do you remember that I asked you to assume that there was certain work changed in that specification, which we have called compensation work? Will you please go over that [1909—1821] schedule and tell me if you know whether the second item of specification was performed or not? Read the whole paper to yourself, and answer yes or no.
- A. From the information we gathered aboard the ship we found that this work was not done.

Mr. FRANK.—Q. You might save us some time if instead of using the general term "from information gathered aboard the ship" you said "from what I was told," or the manner in which the information was given to you.

Mr. McCLANAHAN.—I object.

A. This was information gained aboard the ship in various ways. This particular one by seeing the change that was made, or rather the work of compensation, as it was termed.

- Q. What was the work done instead of that?
- A. There was a counter-balance cylinder made and

installed, which we saw. The valve-stem was lengthened for the purpose of connecting with the piston in this counter-balance cylinder, which we did not see, but it was thoroughly described to us, and the necessary piping we saw, which was used in connecting up this cylinder.

- Q. I will ask you if the fourth item of specification was changed.
- A. The high pressure and intermediate shoes were not reconstructed, but new shoes were cast and fitted to place.
 - Q. Were the guides restayed?
- A. The guides were not restayed as described here, but a new plate was made and fitted in place.
- Q. Examine the fifth item of the specification and answer the same question.
- A. The high pressure eccentric straps were not remetalled. The low pressure eccentric straps instead of being remetalled [1910—1822] were bored out and fitted with bronze liners, and the upper half-pocketed and babbitted. I don't recall whether the lower half was babbitted or not, although I think it was.
- Q. Please examine the seventh item and answer the same question.
- A. The wrought-iron column here described was not supplied and fitted in place, but instead, a composition or bronze patch was secured to the housing and side-condenser.
- Q. Examine the fourteenth item and answer the same question.

A. The windlass was not repaired, but instead of making these repairs two stanchions were fitted on the forecastle deck.

Q. Did you have any information, Mr. Gardner, at the time of first visiting the "Hilonian" of these changes in the original specifications?

A. Yes, sir, I think I had, and I think my testimony relative to what was furnished me at that time should be corrected in that as I now recall it, this was also furnished me, a copy of this specification.

Q. I will hand you a paper and ask you if that is the copy that you refer to (handing).

A. To the best of my knowledge and belief that is the paper.

Mr. McCLANAHAN.—We offer that in evidence and ask to have it marked Respondent Gardner Exhibit No. 1.

Mr. FRANK.—Q. I do not understand that this paper is a paper made out by you at all.

A. No, sir. It was handed to me by Mr. Diericx, I believe.

Mr. FRANK.—I do not see its materiality, and I shall have to object to it as incompetent, irrelevant and self-serving.

(The paper is marked "Respondent Gardner Exhibit No. 1.")

Mr. McCLANAHAN.—Q. Now, Mr. Gardner, I hand you "Kinsman Exhibit No. 2" and ask you to go over each item, simply naming the items as you go over them, by number instead of referring to [1911—1823] the contents, and state whether you

have seen the work called for in connection with that item or what information you have in regard to the work, and also whether that work in your opinion belongs to any one of the specification items and also whether in your opinion it belongs to any one of the schedule items of the libel, from 2 to 10. Do you understand my question?

A. I think so.

- Q. Taking up the first time of the "Kinsman Exhibit" what have you to say?
- A. We saw the tank-top in item No. 1, and had the construction of the interior of the tank described to us by Mr. Kinsman, and, I think, assisted by Captain Saunders. We figured on this item as an extra.
- Q. That is, you consider that it does not belong to any of the specification items, or any of the minor schedules of the libel?
- A. I am not so sure about it not being one of the schedules. (After examination.) It is not connected with any of the schedules.
- Q. Nor does it form part of any of the specification items?
- A. It does not form part of any of the specification items. To the best of my recollection now, it was the subject of a contract, or a letter at least. I do not know if it was a contract.

Mr. FRANK.—I think we will have to quit for today. I have been trying to accommodate Mr. Gardner, but I cannot do so any longer, as I am not feeling well.

Mr. McCLANAHAN.—Let it appear that Mr. Frank being indisposed, we take an adjournment at 3 o'clock.

(An adjournment was here taken until to-morrow, Thursday, November 9th, 1911, at 10 A. M.) [1912—1824]

Thursday, November 9, 1911.

FRED W. GARDNER, direct examination resumed:

Mr. McCLANAHAN.—Q. Mr. Gardner, since the session of yesterday you have spoken to me of other experiences in the line of your profession that you omitted to speak of in your first statement. Before continuing the examination under "Kinsman's No. 2," I wish you would finish your statement as to your experience.

A. One item of experience which I neglected to mention was my connection with the Pacific Mail Steamship Company in the capacity of First Assistant Engineer on the steamer "Peru," running between San Francisco and the Orient. I was engaged in that capacity for about a year. I do not just recall the exact length of time, not more than a year, but about a year. I think it was 4 or 5 round trips to China.

Q. Is that in addition to the sea experience you have already stated?

A. That is in addition to the sea experience that I referred to yesterday. In connection with the work at the Union Iron Works I had entire charge of the trial trips of the United States Cruisers "Milwaukee," "South Dakota," "California," torpedo destroyers "Perry," "Preble" and "Paul Jones," the monitor "Wyoming." I also assisted in the

trials of the cruiser "Tacoma," and had charge of the trials of the merchant vessels "Californian," "Alaskan," "Arizonian," "Mexican," "Columbian" and several others that I do not recall just at the present moment.

Q. In your sea experience have you had occasion to do any repair work to machinery?

A. At the time I was going to sea [1913—1825] it was a matter of pride on the part of the engineers that they did practically all their own repair work except such work as had to be performed in large tools. Illustrating that, I might state that on one occasion while employed as first assistant on the steamer "Oregon" we removed the tail-shaft, stern tube, naturally the propeller first, installed new tailshaft, stern-tube and propeller, the work all being performed by the ship's engineer's department under my supervision, and in a coffer-dam, the vessel not even being drydocked. We also installed a new crank-shaft, first removing the old crank-shaft from the vessel and delivering it on the dock, and received the crank-shaft that had been made on the dock. and installed that in place, the work all being performed by the engineer's department.

Q. What connection had you with the work that you have just spoken of?

A. It was under my supervision. Much of it I really did myself during the time that the crankshaft was being constructed, not being very busy; a great deal of the small repair such as is usually done by what is termed the vice hand I engaged in myself.

- Q. Yesterday you spoke of your experience in repair work. What does that mean or include?
- A. Well, it is a pretty large subject. It includes the repairs made necessary through the wear and tear of the machinery, auxiliaries. Often the vessel's hull, also repairs made necessary on account of damage sustained through collision, submersion of vessels, fire.
- Q. Did your experience in repair work include estimating the value of the work?
- A. Yes, sir, the estimating of the [1914—1826] work, and in addition to that the supervision of the work after the work had been awarded to concerns to which I was attached.
- Q. More particularly with regard to your experience as estimator of work, will you give us some further light on that subject?
- A. My experience at the Union Iron Works was very largely connected with estimating upon repairs, alterations, and as I said before, later in the superintending of these repairs.
- Q. Have you ever estimated the value of repair work that had been made and completed? Do you understand the question?
- A. I don't recall that I ever had an opportunity to estimate as thoroughly on a job as I have had on this particular one, the work having been performed, and it being possible to see the major portion of it; in fact, see a great deal more possibly than one would ordinarily see in bidding on the work; surely quite

as much as the man who was bidding on the work would have seen.

- Q. What is the comparative advantage to the man who bids or estimates the value of work he has seen, work that has been accomplished?
- A. Will you repeat that again? I did not quite catch the question.
- Q. Read the question, Mr. Reporter. (The Reporter reads the question.) I will add: as against work that has not been accomplished but which is to be done.
- A. There is an element of time that should be taken into consideration in replying to that question as in estimating on work on which one is requested to bid, you are usually hurried, due to the fact that the man desiring this work is anxious to obtain the use of his vessel or engine, whatever [1915—1827] it may be. This condition, of course, in making this particular estimate, did not obtain as there was no rush but ample time given to go over every detail very thoroughly, therefore in reply to your question I should say that the advantage in making an estimate after the work has been performed as compared with making an estimate for the purpose of making a bid would be a very great advantage.

Mr. FRANK.—Read that last part of the answer, Mr. Reporter.

(The Reporter reads as requested.)

A. (Continuing.) I should say the man has a great advantage in making an estimate after the work has been performed over a man making an esti-

mate before the work has been performed, for the purpose of bidding on it.

Mr. McCLANAHAN.—Q. You say the advantage of making the estimate lies with the man who is estimating on completed work. What do you mean by the use of the term "advantage" as related to the estimate which is being made?

A. He has an advantage in that there is no necessity for making an allowance for unforeseen contingencies which is usually allowed in making an estimate before the work is performed. You really do not know in many cases what will be necessary. The work having been performed, it is very evident what has been necessary and what has been performed.

- Q. Then the advantage is a matter of accuracy.
- A. A matter of accuracy in preparing an estimate.
- Q. As to the value of the work?
- A. As to the value of the work.
- Q. You have spoken of your connection with Lloyd's Register. [1916—1828]
- A. Pardon me, I referred to my connection with Lloyd's Agency.
- Q. Lloyd's Agency. Will you please state what your duties in that relation are?

Mr. FRANK.—I do not understand that he has testified to a fixed connection with Lloyd's Agency, only that he is at times employed by them. (Addressing the witness:) Am I right, Mr. Gardner?

A. Not exactly.

Mr. McCLANAHAN.—Q. You mean he is not exactly right?

A. He is not exactly right in his impressions. I think, by referring to the record you will see I said that I opened an office as Consulting Engineer, with the assurance from Lloyd's Agency that I would get a large portion of their business; that there might be no mistake in regard to that, I procured from them a statement to the effect that I was to be considered, as I recall it, their representative in connection with damage claims, in the capacity of a surveyor. There was no fixed salary attached to this appointment, however.

Q. Does that appointment hold good to this date?

A. It holds good to this date, and I am now employed by Lloyd's Agency on three different vessels that are in this harbor of San Francisco at the present time.

Q. Now, will you please answer my original question as to the duties which that relationship involves?

A. My duties are to proceed aboard of damaged vessels, ascertain the nature and extent of damage, and make recommendations for repairs, and have these repairs under general supervision while they are proceeding.

Q. Do you have anything to do with estimating on the value of these repairs?

A. Well, it is usually requested by the agency that the Surveyor make some statement as to what he [1917—1829] considers the value of the work will be. It is an estimate, yes; not a very carefully prepared estimate, not prepared in detail.

Q. And made before the work has been done?

- A. And always made before the work has been done, yes.
- Q. When this repair work has been submitted to bidders, do you have anything to do with the bids after they have been received?
- A. If the matter has been referred to bidders on a job with which I am connected, these bids are referred to me for an opinion as to whether the quotation is reasonable, or not.
 - Q. And to whom do you give that opinion?
 - A. To Lloyd's agent in San Francisco.
- Q. Now, Mr. Gardner, taking up your examination of "Kinsman Exhibit 2," will you pass to the next item, item No. 2, and state whether you have seen that work, or whether it is connected with any of the schedules attached to the libel and forms part of any of the original specifications.
- A. We estimated on this as an extra. It is a very small item—"three holes in the bottom of the ship." When the vessel was placed in drydock we saw the plugs of two of these holes, although we could not see the actual patch that was put over little 4-inch holes, probably a flush-patch. These holes were no doubt put in for the purpose of steaming and cleaning the tank. We so considered it at least. I should like to correct my statement to the extent that we included 2 and 3 really in considering this matter as they both refer to the same subject. We took the cutting of the holes and the patching of them under one item I believe. [1918—1830]
 - Q. Will you state whether there was any difficulty

from what you saw, in determining the value of that work as an extra.

- A. Are you referring to item No. 1 or item No. 2?
- Q. I am referring to items No. 2 and No. 3.
- A. No difficulty whatever.
- Q. Pass now to item 4.
- A. We figured on this as an extra. We saw the angle-iron bars.
 - Q. Pass to No. 5.
- A. We saw and estimated as an extra for the items referred to in No. 5.
 - Q. Proceed.
- A. To the best of my recollection we considered items 6 and 7 together. We saw these floor plates and supports back of engines and we saw the floor where raised over shaft, and saw the angle-iron bars supports for same. We considered that this work was not entirely an extra in that the work would be necessary on account of the repairs recommended in item No. 1 of the original specifications, and on account of a contract for the installation of a new circulator, said contract having been awarded to the United Engineering Works prior to the main part of the repairs in "Respondent Saunders Exhibit No. 1."
- Q. I see "Respondent's Heynemann No. 4" has that on items 6 and 7 you did make an estimate of \$500, which was included in your estimate of that date, April 29th, 1910. At that time did you, or did you not, consider items 6 and 7 as an extra?
 - A. I think originally—we have, of course, gone

over these estimates a number of times; we did prior to April 29th; we have gone over them several times since for the purpose of checking them up and seeing if as a total we were correct in our estimates. While we have had no original estimate of the details of these various items we made separate estimates where [1919—1831] we received information after sending in our letter of April the 29th to see if we had been entirely just to the United Engineering Works and the Matson Navigation Company. The general conclusion arrived at after reviewing our estimate was that there should be little or no change made in it though this particular item, 6 and 7, we found was chargeable to the contracts before referred to. Let me correct myself: we made some allowance for the handling of plates in these repairs.

- Q. As an extra? A. As an extra.
- Q. My question referred to your original attitude in regard to 6 and 7, when the letter of April 29th, 1910, was framed. Did you or did you not, at that time, consider and figure 6 and 7 as an extra in its entirety?
- A. We considered the raising of the flooring over the shaft an extra, no doubt, and we considered the reconstruction of floor-plates and supports at the back of the engine as being largely chargeable to item No. 1 of the original specifications, to the best of my knowledge at the present time.
- Q. Mr. Heynemann, Mr. Gardner has produced here in his Exhibit No. 4, what he says is the original list of work with itemized prices agreed upon be-

tween yourself and himself of these items, and opposite 6 and 7 is the sum of \$500. Does that assist your memory as to whether or no you at that time figured on 6 and 7 as an extra in its entirety?

- A. I may state that by referring this paper to me at the present time—
 - Q. What paper do you refer to now?
- A. "Respondent's Exhibit Kinsman 2," and asking me the questions that you do, that I consider it more a test of memory than anything else. [1920—1832]
- Q. Does the statement I have made with reference to "Heynemann Exhibit No. 4" assist your memory with regard to those two items?
 - A. It certainly does.
- Q. As to whether you figured them as an extra or not?
- A. In connection with that I think that my statement is correct in that possibly we figured on it as chargeable to No. 1, but later decided it was chargeable as an extra. We figured these things several different times with every effort to do justice to all concerned. This list was, after other considerations of the estimate, made by each of us individually, and these other conclusions arrived at, to the best of my knowledge and belief at the present time.
 - Q. We will pass now to No. 8.
- A. We figured on a portion of the handrails where stated to have been changed in the matter of lead as an extra. We saw these handrails.
 - Q. I do not quite understand your answer. Does

it apply to the whole item, or only a portion of it as having been figured on?

- A. Only a portion of it. As I recall at the present time there were some slight changes made in these handrails, some of them—one of them, I think, only.
- Q. I still do not follow you. Is that item figured on as a whole, as an extra?
- A. No, sir, part of it as an extra. The changes that were made in the lead of the handrails.
- Q. What became of the remaining part of the work?
- A. The remaining part of the work we considered as chargeable to the general taking down and assembling of the machinery in connection with the original specifications.
 - Q. Pass now to No. 9.
- A. We saw these guards stated to have been made and fitted, [1921—1833] and found that they had not been made and fitted as the appearance of the guards indicated; that the major portion of them were of old material while it was quite evident that some new plates had been fitted to these guards, therefore we figured on that portion of it as an extra as a repair and not as having been made and fitted.
 - Q. What portion of it as an extra?
 - A. The repairs to the guards.
- Q. And what did you do with the balance of the item?
- A. We considered that that was a part of the taking down and reassembling of the machinery in con-

nection with the specification for the original repairs.

- Q. What part was that?
- A. The removing of them and replacing them.
- Q. Pass now to No. 10.
- A. We saw this bulkhead and patch referred to in item 10, and estimated on it as an extra.
 - Q. Pass to 11.
- A. We saw this slush-pan where drain-holes had been cut in same and plug-fitted, and estimated on it as an extra.
 - Q. Pass to 12.
- A. We saw the sheet-iron cover for turning engine, and figured on it as an extra.
- Q. Mr. Gardner, I think we can save the record if you will refrain where it is appropriate from stating the contents of the items, and refer to it simply by number, of course making your explanation as full and explicit where it is necessary. Pass now to 13.
- A. We saw the article referred to and figured on it as an extra.
 - Q. Pass to 14.
- A. We saw this and figured it as an extra. [1922—1834]
 - Q. 15.
 - A. We saw this and figured on it as an extra.
 - Q. 16.
 - A. We saw this and figured on it as an extra.
 - Q. 17.
- A. We saw the hole made by cutting away the lagging referred to, and figured on it as an extra.
 - Q. 18.

A. We did not see the combustion chambers referred to in item No. 18, but being thoroughly familiar with this class of work—I personally have done this particular kind of work in years gone by—and having it explained to us by Mr. Kinsman, we figured on it as an extra.

Q. What did Mr. Kinsman explain?

A. I must admit that I do not remember the details of his explanation in regard to that cleaning, other than it was done in the usual way, and he knowing me personally assumed I would be familiar with what the cleaning of the combustion chambers would be. I think I asked him if there was a particularly heavy scale in this chamber at the present time. As I recall it now he said there was nothing unusual.

Q. Was there anything lacking in your inspection or your consideration of that item that made it difficult to figure on the value of the work set out in the item? A. Not at all.

Q. Pass to No. 19.

A. We saw this, and figured on it as an extra.

Q. 20.

A. We saw the lagging on the main boilers and had an opportunity to examine it with the view to ascertaining the manner in which it was applied. The lagging having been painted it was impossible to see the exact extent of the repairs probably made, but we figured on this item as an extra with the assurance from Mr. Kinsman that there was not more than 180 square feet treated; though in his opinion

the extent [1923—1835] of the repairs were much less than this we allowed for, as I recall at present about 180 square feet.

- Q. Pass to 21.
- A. We saw and figured on this as an extra.
- Q. 22.
- A. We did not see these check-valves and discs and seat though we saw the body of these valves from which ordinarily one would be able to estimate the value of checks, discs and seats, and in addition to this general knowledge I think we were shown some spares. I think also in questioning Mr. Kinsman as to the construction of the valves themselves I sketched one showing a stem which he corrected by saying they were constructed with four guide wings, rather than one central stem.
 - Q. Four guide wings? A. Wings, yes.
- Q. Was there anything in that item lacking in order to make an intelligent estimate on the value of the work?

 A. Nothing that I can recall.
 - Q. Was it figured on as an extra?
 - A. It was figured on as an extra.
 - Q. Pass to 23.
- A. We did not see the valve-discs. We did see the yoke, stem and nut. We did not see the valve-seat, though we saw the body of the valves, and our general knowledge of valves of this description enabled us to figure on it intelligently. It was figured on as an extra.
 - Q. Pass to 24.
 - A. We saw the strap-hangers for feed-lines, and

figured on them as an extra. We made diligent search for the bottom blow-hangers, but were unable to find any, and were informed by Mr. Kinsman that none had been supplied.

- Q. If they had been on the ship would you have been able to have seen them?
- A. There would have been no difficulty in seeing them. [1924—1836]
- Q. How did you figure on the hangers on the feedlines? A. As an extra.
 - Q. Pass to 25.
- A. We did not see the actual holes. We saw where gauge-cocks had been fitted, and assumed that the work had been done, and figured on it as an extra.
 - Q. Pass to 26.
- A. We saw the shaft, and I think the handle of this damper, but as one of the schedules contained the item for furnishing and installing a stack, we did not figure on this as an extra.
 - Q. Why not?
- A. As we considered that it was included in part of Schedule No. 9 calling for the construction of a new stack, removal of old and installing new.
 - Q. Pass to 27.
- A. We saw the stanchion referred to, and we considered that it was a part of the installation of stack referred to in Schedule 9, in that portion of Schedule 9 to the amount of \$900.
 - Q. Schedule 9 attached to the libel?
 - A. Attached to the libel.

Q. Pass to No. 28.

A. We saw these letters and estimated on them as an extra.

Mr. McCLANAHAN.—Mr. Gardner, because of his engagements, has requested an adjournment of this hearing at noon. I have gone over the matter with him, and it will be greatly to his convenience if we reconvene on next Tuesday morning.

Mr. FRANK.—This is your last witness, is it?

Mr. McCLANAHAN.—I probably will have one very short one, maybe two; but they will both be very short.

Mr. FRANK.—All right.

Mr. McCLANAHAN.—Q. Now, pass to No. 29.

A. In reference to item No. 29, we saw this work and did not [1925—1837] estimate on it as an extra, as we considered it covered by the installation of smoke-stack in Schedule No. 9 calling for the construction and installation of a smokestack for \$900.

Q. Pass to 30a.

A. We saw this ladder and figured on it as an extra.

Q. 30b.

A. We saw it and figured on it as an extra.

Q. 31. A. Saw it, and figured on it as an extra.

Q. 32.

A. We were never able to find this particular broken beam, but from the dimensions telephoned to my office, we estimated on it as an extra.

Q. Who telephoned to you?

A. I don't know. Someone representing him-

self as being in connection with the Matson Navigation Company. I am under the impression at the present time it was Captain Saunders.

- Q. After receiving this telephone message, did you recognize where the patch was made?
- A. No, sir, we never really located this patch, though it seems to me at the present time we were shown a patch approximately of the dimensions given on a beam somewhere on the ship, but I don't recall just where it was.
- Q. State whether you had or did not have sufficient information given you to enable you to make an intelligent bid on that work.
- A. I think the information as given was sufficient so far as that was concerned.
- Q. State whether you had looked at the beams and knew their general construction.
- A. Very carefully. I have gone over these beams a number of times trying to locate this patch.
- Q. Did any information that you received later about the patch enable you to make an intelligent estimate in connection with [1926—1838] what you had seen?
- A. That was subsequent to April 29th. I think we got some information from Mr. Klitgaard to the effect that there was such a patch. Just where he said I do not remember at the present time. It was practically in line with the information we had previously received relative to the general dimensions of the patch.

Q. That hardly answers my question. Read it, Mr. Reporter.

(The Reporter reads the question.)

- A. I think had we paid careful attention to the description given by Mr. Klitgaard, we might have been able at that time to have made an intelligent estimate very easily, and I think we did.
 - Q. You think you did what?
 - A. Make an estimate at that time.
- Q. That hardly answers my question. Read the question again, Mr. Reporter.

(The Reporter reads the question.)

- A. I am pretty dense, but I suppose I will get it in my head pretty soon.
- Q. That is, any information received after you had examined the beams and knew their construction?
- A. That was taken into consideration in making that estimate naturally.
- Q. Now, answer the question: did that added information make it possible for you to make an intelligent estimate? A. It did in my opinion.
 - Q. You figured on that as an extra?
 - A. We figured on that as an extra.
 - Q. That is 32? A. 32.
 - Q. Pass to 33.
- A. We saw this work and figured on it as an extra. [1927—1839]
 - Q. 34.
 - A. We saw this work, and figured on it as an extra.
 - Q. 35.
 - A. Saw it, and figured on it as an extra.

Q. 36.

A. Saw it, and figured on it as an extra.

Q. 37.

A. Saw it, and figured on it as an extra.

Q. 38.

A. Saw it, and figured on it as an extra.

Q. 39.

A. We did not actually see the brass liner, but from sketches made and descriptions given by Mr. Kinsman, we were enabled to make an intelligent estimate of the value of this brass-liner. We figured on it as an extra.

Q. Would your general knowledge of the item be of any assistance to you in figuring on the matter without any statement from Mr. Kinsman?

A. Why, had I been sent to this vessel for the purpose of making an estimate, with the object in view of eventually bidding on the work, I doubt whether I would have asked Mr. Kinsman any questions in regard to it. I would have been guided entirely by my previous experience.

Mr. FRANK.—I think it would be well, Mr. Mc-Clanahan, unless you have some particular reason for it, to refrain from leading the witness, as you have been doing right along. I have made that suggestion frequently. I suppose you will pay the same attention to it as you have heretofore.

Mr. McCLANAHAN.—Q. Pass to 40.

A. We saw and figured on this work as an extra.

Q. 41.

A. We saw the roller chain leads referred to, and

(Testimony of Fred A. Gardner.) could find no evidence of their having been raised, but in making a further examination we came to the conclusion that two rollers supporting the quadrant would necessarily have had to be raised, and we estimated on this instead of the rollers for chain lead and figured on it as an extra.

Q. 42.

A. We saw this work and figured on it as an extra. [1928—1840] I would like to correct my statement in regard to this. It may apply to others.

Q. In regard to what?

A. Item No. 42. We first figured on it without seeing it but later we checked up our figures after seeing it.

Q. 43. A. The same answer applies to 43.

Q. 44. A. The same answer applies to 44.

Q. 45.

A. We did not see the keyway in propeller-hub, and we did not figure on it at all. To the best of my recollection the propeller was to be made and installed as covered by the original specification, item 9.

Q. You did not figure on that as an extra because it belongs to item 9. Is that the idea?

A. That is the idea.

Q. Of what comparative value would that work be. Was it a large size item or a small one?

A. Keyway in propeller-hub. Ordinarily, quite a small item.

Q. Pass to 46.

A. We saw and figured on this as an extra.

Q. 47.

A. We saw this work and figured on it as an extra.

Q. 48.

A. We saw this and figured on it as an extra.

Q. 49.

A. We first figured on this work as an extra, without seeing it, and later saw it when the vessel was in drydock. We saw no occasion to change our original estimate.

Q. 50. A. The same remarks apply to 50.

Q. 51.

A. We estimated on 51 and 52 together as an extra. We saw the work as completed.

Q. 53.

A. We figured on this work without seeing [1929—1841] the propeller, but later saw it when the vessel was in dock, and saw no occasion to change our estimate.

Q. 54.

A. We saw this work and figured on it as an extra.

Q. 55.

A. We figured on the new material on this item as an extra, but considered that the removal and restoration to place was covered by item 9 of the original specifications.

Q. In what way covered by item 9?

A. In that it was necessary to remove this pipe as it directly extended over the shaft and put it back in place upon completion of the work.

Q. 56.

A. We saw this work and figured on it as an extra.

Q. 57.

A. We saw it and figured on it as an extra.

Q. 58.

A. We saw this work, and either under this heading or another referring to coffer-drains, which we interpreted as meaning cylinder-drains, we allowed certain changes as an extra. The remainder of the work we considered as being covered by item No. 9 of the original specifications.

Q. 59.

A. We considered this job in a general way which we saw as being chargeable to a part of Schedule No. 9, calling for the removal of old stack and installation of new, although upon receiving explanation from Mr. Kinsman to the effect that certain articles were furnished in addition to what might be covered by the removal and installation of a new stack; we figured on the same fittings as an extra; just what they are, I do not recall now.

Q. The fittings that were mentioned to you by Mr. Kinsman?

A. By Mr. Kinsman—were figured on as an extra. [1930—1842]

Q. 60.

A. We saw this work and figured on it as an extra; that is, we saw a hole which we assumed had been enlarged.

Q. 61.

A. We saw this work and figured on it as an extra.

Q. 62.

A. We saw this bilge-pump body and considered

it was not necessary to remove it for the purpose of brazing a copper-pipe, but that it was necessary to remove it in connection with repairs specified in item No. 1 of the original specifications.

- Q. Therefore you did not figure on it?
- A. We did not figure on it as an extra.
- Q. 63.
- A. We saw this bonnet and figured on it as an extra.
 - Q. 64.
- A. We saw this work and figured on it as an extra, although as I recall it at the present time we were in doubt as to whether binder-bolts had been treated as described, nevertheless the entire matter was treated as having been performed and figured on it as an extra.

Q. 65.

- A. We did not see the air-pump floating top, but from sketches and descriptions furnished by Mr. Kinsman, and from our own general knowledge of air-pump construction we made an estimate which we considered an extra.
- Q. Does that statement apply to the whole of the item, or to simply the floating-top of the item; in other words, is that the only thing of the item that you did not see?
- A. We did not see the holding-lugs, and we did not see the bronze tap-bolts.
 - Q. So it does apply to the whole item?
- A. We did see the flange of the air-pump—I beg pardon, we [1931—1843] did not see the flange of

(Testimony of Fred A. Gardner.) the air-pump. It applies to the whole item.

Q. 66.

A. We did not see these bushings, but from our general knowledge of pump construction, and from information furnished and sketches made we made an estimate and considered it an extra.

Q. 67.

A. We saw the circulator-pump barrel from which we could form an intelligent estimate as to what the value of this work might be, but we considered an estimate unnecessary as in our opinion this work was covered by item No. 1 of the original specifications.

Q. 68.

A. We saw this work and figured on it as an extra.

Q. 69.

A. We saw this work and figured on it as an extra.

Q. 70.

A. We saw this work, and considered that the facing off of these coupling was covered by item No. 9 of the original specifications. We saw no evidence of the thrust-couplings having been turned down, although we made a careful examination of it. We were also informed that it had not been turned down.

Q. Had it been turned down would the items still belong to item No. 9 of the original specifications?

A. I think not.

Q. 71.

A. Practically the same remarks apply to 71 as already have been made in reference to item 70.

Q. 72.

A. We saw where these ribs had been chipped and holes drilled, and figured on it as an extra.

Q. 73.

A. We saw it and figured on it as an extra.

Q. 74.

A. We saw this work, and considered that it was covered by the original specifications item No. 9.

Q. 75.

A. We saw this shafting and considered the work here described was covered by item No. 9 of the original [1932—1844] specifications.

Q. 76.

A. While we did not see the holes, we saw the coupling bolts from which the size of the hole could be ascertained, and considered that it was covered by item No. 9 of the original specifications.

Q. 77.

A. We saw the coupling bolts and considered that the work of fitting and supplying was covered by item No. 9 of the original specifications.

Q. 78.

A. We saw this work and considered that the removal of same and restoring of it to original position was covered by item No. 9 of the original specifications, but as we were informed that brass fittings and pipe had been supplied being different from the original construction we made allowance for these brass fittings and pipes as compared with iron fittings.

Q. By making allowance you mean you figured those as extra?

A. We figured on that part as an extra.

Q. 79.

A. We first considered that this was covered by item No. 9, but to the best of my recollection at the present time we figured on this as an extra.

Q. What does I. W. P. mean?

A. It really means nothing so far as I know, but we interpreted it as meaning the "intermediate crankpin."

Q. Pass to No. 80.

A. We considered the remetalling of these brasses made necessary by the trueing up of the intermediate crank-pin, and figured on it as an extra to the best of my recollection.

Q. Did you see it? A. We saw it.

Q. My question applies to No. 80?

A. We saw the pin and brasses.

Q. Pass to 81.

A. We saw these horseshoes and considered [1933—1845] the work as being covered by item No. 9 of the original specifications.

Q. 82.

A. We saw these binders and figured on the enlargement of handholes and holes plugged, as an extra. The remainder of the work we considered as being covered by the original specifications, item No. 9, I think.

Q. Please examine item No. 9 and make sure of your answer.

A. That is what I am doing. (After examination.) We charged it to item No. 9 as being made

(Testimony of Fred A. Gardner.)
necessary on account of the fitting of new shells to be supplied by the ship.

Q. 83.

A. We saw these holding-down bolts and considered that they were covered by item No. 9 of the original specifications.

Q. 84.

A. We did not see the high pressure and intermediate valve but from a general knowledge of the work entailed by cleaning and oiling valves of this description we were enabled to form an estimate.

Q. Was it figured on as an extra?

A. We figured on it as an extra, I think, to the best of my recollection.

Q. 85.

A. We saw this work, and figured on it as extra.

Q. 86.

A. We saw this work, and figured on it as extra.

Q. 87.

A. We saw this work, and figured on it as extra.

Q. 88.

A. We saw the low pressure piston follower, and figured on it as an extra.

Q. 89.

A. We interpreted "lug-thrust spare L. P. valve stem" as meaning "Lengthen low pressure valve stem," and as the lengthening of this valve stem was made necessary on account of the installation of balance-cylinder over the low pressure valve, we considered that it was covered by item No. 2 of the [1934—1846] original specifications.

- Q. What part of item No. 2?
- A. If not by item No. 2, covered at least by the original specifications in connection with the installation of a balance-cylinder.
- Q. Will you please examine "Gardner Exhibit No.1" and answer the question? A. It is item No. 2.
 - Q. That is, it is the compensation work?
 - A. Compensation work in item No. 2.
 - Q. Pass to No. 90.
 - A. The same remarks apply to 90.
 - Q. 91.
- A. We saw these bolts, and although there was a doubt in the mind of Mr. Kinsman who pointed them to us, as to whether they had been renewed or not, we figured on them as an extra.
 - Q. 92.
- A. We saw the intermediate valve-chest lower head, and where it had been drilled for an inch and a half drain-plug; although we did not see the holes in the ribs of this cover a description was given of the holes, and the size to the best of my recollection, and we figured on the item as an extra.
 - Q. 93.
 - A. We saw this and figured on it as an extra.
 - Q. 94.
- A. We saw these parting pieces, and considered that they were covered by the original specifications.
 - Q. What part of the original specifications?
 - A. Item No. 5.
- Q. Item No. 5 as it was originally, or as it was changed?

- A. As it was changed in compensation for work not performed in connection with item No. 5. [1935 –1847]
 - Q. Pass to No. 95.
- A. There was some little discussion about this particular item. While at first we considered it was covered by item No. 5 of the original specifications, I think that we finally decided that as it was probably done for the purpose of altering the position of the valves, we figured on it as an extra.
 - Q. Did you see the work? A. We saw the work.
 - Q. 96.
- A. We did not see this bushing, but from our general knowledge of neck-bushings as usually installed, and from the descriptions given and sketch made by Mr. Klitgaard, we figured on it as an extra.

Q. 97.

A. We saw these guide-brasses, and figured on them as extras.

Q. 98.

A. We saw this item, and figured on it as an extra.

Q. 99. A. The same remarks apply to 99.

Q. 100.

A. We saw the parting pieces, and figured on them as an extra.

Q. 101.

A. To the best of my recollection we figured on the repairs to these oil-cups as an extra, but the fitting which we interpreted as meaning the fitting them in place, we considered as having been covered by the original specifications.

- Q. Did you see the oil-cups?
- A. We saw the oil-cups.
- Q. 102.
- A. We saw them and figured on them as an extra.
- Q. 103.
- A. We saw this work, but upon inquiring of Mr. Kinsman as to whether this turning-engine had not been used in the dismantling and reassembling of the engines in connection with item No. 9, and being informed that it was so used, and that these straps and sheave had been damaged while being [1936—1848] so used, we considered that the work was covered by item No. 9 of the original specifications.
 - Q. And did not figure it?
 - A. We did not figure on it as an extra.
 - Q. 104.
- A. We saw this work, and at first considered that it was entirely covered by item No. 9 of the original specifications, but upon being informed that the sizes of some of these set-screws might possibly have been changed, we figured on it as an extra—part of it as an extra.
 - Q. 105.
 - A. We saw this work, and figured on it as an extra.
 - Q. 106.
- A. We saw this work, and either under this item or the other item referred to in my testimony relative to copper pipes—
 - Q. Item 58.
- A. Item 58—we figured on certain changes and some jointing material, and also some bolts and nuts,

(Testimony of Fred A. Gardner.) as I recall it now, that might have been necessary as an extra.

- Q. And the balance of the item is what?
- A. The balance of the item is covered by the original specifications in moving parts of the machinery and reassembling them.
- Q. What do you understand "coffer-drains" to mean, used in item 106?
- A. I had no knowledge up to a short time ago as to the exact meaning of "coffer-drains," as I had never heard the expression used before, but interpreted it as meaning "cylinder drains."
- Q. And it was on "cylinder drains" that you made your estimate?
 - A. Yes, sir; cylinder and valve-chest drains.
- Q. Mr. Gardner, please re-examine No. 58 in connection with [1937—1849] 106, and state whether there is a difference in the two items, or whether they are the same.
- A. I consider that 58 refers to more than the cofferdrains as referred to in 106, but we might have made the estimate under either head.
 - Q. One is included in the other?
 - A. I considered that one is included in the other.
- Q. Pass to 107. You may consider 107 and 108 together as the evidence shows that 107 is a part of the first expression found in 108, so that 107 should read "Supplied and fitted $1\frac{1}{2}$ bross-nipple, 'etc.,' to drain on main steam line."

Mr. FRANK.—We object to that instruction to the witness. The witness is testifying not as to what the

evidence shows, but as to what he did at that time. It is immaterial what the evidence has shown since.

Mr. McCLANAHAN.—Q. You may still do as I suggest.

Mr. FRANK—If he is constructing his evidence now to meet the evidence, of course, we want to know it.

Mr. McCLANAHAN.—Q. You may still do as I suggest. Consider those two items together.

A. I will follow your instructions, although I consider it unnecessary to do so, as in making our estimate we did consider items 107 and 108 as being necessarily taken together, as without the assistance of 108, 107 would be incomplete.

Q. How should 107 read then?

A. We interpreted it as reading "Supplied and fitted 1½ brass-nipple and Lunkenheimer globe valve to drain on main steam line."

Q. Now, will you take that item up and tell us whether you saw it?

A. We saw that, and figured on it as an extra.

Q. Now, will you consider the balance of 108? [1938—1850]

A. As we were informed that the drains on water service to guides were originally of iron, we figured as an extra the difference between iron and brass as found to be fitted. The reconstruction of all water service lines in the engine-room and shaft-alley we considered as being covered by item No. 9 of the original specifications, in that these drains and water service lines would have had to be removed neces-

sarily, and restored to position in connection with the work on item No. 9 of the original specifications.

Q. Did you see the work in 107 and 108?

A. We saw this work.

Mr. McCLANAHAN.—Now, we will have to adjourn.

Mr. FRANK.—Why cannot we go on and finish the whole list? There are only a few left.

Mr. McCLANAHAN.—It will take at least three-quarters of an hour.

Mr. FRANK.—Inasmuch as I am allowing you some concession you ought at least to make a concession of another hour to me.

Mr. McCLANAHAN.—I do not know what concession you have allowed me.

Mr. FRANK.—I have consented to this going over until Tuesday next.

Mr. McCLANAHAN.—To accommodate the witness.

Mr. FRANK.—It is your accommodation, not mine. I do not like the manner in which you assume control of every detail of this examination.

Mr. McCLANAHAN.—I am very sorry if my manner is at all offensive to you; it is not intentional.

Mr. FRANK.—It would be offensive to anybody. I think [1939—1851] I am entitled to that concession at this time, that you finish this up. The witness is going to be away. You still refuse to do it?

Mr. McCLANAHAN.—Yes.

Mr. FRANK.—Very well, Mr. McClanahan. I suppose I am at your mercy.

Mr. McCLANAHAN.—I do not want you to say that, Mr. Frank.

Mr. FRANK.—I know you do not.

(An adjournment was here taken until Tuesday, November 14th, 1911, at 10 A. M.) [1940—1852]

Tuesday, November 14th, 1911.

(An adjournment is taken until Saturday, November 18th, 1911, at the request of Mr. McClanahan.) [1941—1853]

Saturday, November 18th, 1911.

Mr. McCLANAHAN.—Mr. Reporter, let the record show that sometime during the middle of the past week Mr. Frank's office was requested to continue the hearing of this matter on Friday, November 17th. Mr. McClanahan's engagements at that time permitting of such a hearing.

Mr. FRANK.—And Mr. Frank's engagements at that time not permitting, it was not acceded to. That is the story.

Mr. McCLANAHAN.—Hardly the whole story. Mr. Frank's office, I am informed, was advised of this request, and since being so advised we have not heard from Mr. Frank's office until Friday morning, when Mr. Frank informed me that he had told his son, who conveyed the message to him about the hearing for Friday morning, that it would not be convenient for him, but his son failed to advise any of the interested parties of that statement.

Mr. FRANK.—That is the most ridiculous thing I ever heard of, to put that in the record.

[Testimony of C. C. Kinsman, for Respondent (Recalled).]

C. O. KINSMAN, recalled for the respondent.

Mr. McCLANAHAN.—Q. Mr. Kinsman, you have read your evidence given in this case, have you?

- A. Yes, sir.
- Q. Is there a correction you wish to make in it?
- A. Yes, sir.
- Q. What is it?
- A. On page 1559 I gave the following answer in reply to a question with reference to testing the crank-shaft. I answered that question as follows: "And I want to modify my answer to the other, that an absolute test of the [1942—1854] truth of that shaft could not be got between the centers of a lathe." I meant to say, "In the manner described in the specifications," in addition to that answer.
- Q. Mr. Kinsman, at any time during the visits of either Gardner or Heynemann to the ship, did you or did you not tell them of the method used in cleaning the tank-top, how it was cleaned?
- A. I described it to Gardner. I don't know whether Heynemann was present or not.
- Q. Did you at any time tell either Gardner or Heynemann during their visits to the ship the amount of scaling done on the boilers? A. Yes, sir.

Cross-examination.

Mr. FRANK.—Q. Why did you not go off on the "Hilonian," Mr. Kinsman, as it was suggested you were going when the last examination was concluded?

Mr. McCLANAHAN.—I object to that as not

(Testimony of C. C. Kinsman.) proper cross-examination.

A. I would have had to have had an air-ship.

Mr. FRANK.—Let us not have any trivialities.

A. The ship was at sea.

Mr. McCLANAHAN.—The ship has not been back.

Mr. FRANK.—Q. When did she go to sea?

A. I forget the date; she is due back here shortly. It is only a 35-day trip.

Q. How many days had she gone to sea before that examination was concluded?

Mr. McCLANAHAN.—I object to that as immaterial and not proper cross-examination.

A. A couple of days, I think—two or three days. I believe I can give you the exact number of days. It was on the Friday [1943—1855] I think, previous to my testifying, and that was on Tuesday.

Redirect Examination.

Mr. McCLANAHAN.—Q. There is one more question that I should like to ask you, Mr. Kinsman. Were the litening holes in the athwartship plates cut in place, or off the ship?

A. In place.

Q. Did you or did you not convey that information to either Gardner or Heynemann?

A. To the best of my recollection I did, to Gardner.

Recross-examination.

Mr. FRANK.—Q. What was the purpose of your going over this testimony since your examination, Mr. Kinsman? A. My testimony?

Q. Read the question to him, Mr. Reporter. (The Reporter reads the question.)

- A. Assuming that the question means my testimony, to find out if there were any corrections to be made, or errors in it.
- Q. Did you go over the rest of the testimony of any of the other witnesses? A. I read a little of it.
 - Q. Whose testimony?
- A. At times I suppose I glanced at most of the testimony, that is, of most of the witnesses.
- Q. You know what I mean, Mr. Kinsman. Did you read over the testimony of any other of the witnesses, not glanced over it, but read over the testimony of any other of the witnesses since your examination?

Mr. McCLANAHAN.—I object to the question as immaterial.

- A. At no time during the case have I read any witness' complete stestimony.
- Q. Then have certain parts of the testimony been pointed out to you to be read by you?
 - A. No, sir. [1944—1856]
 - Q. How were they indicated to you?

Mr. McCLANAHAN.—I object to that question. It carries the inference that there was an indication of testimony to be read, and there is no such evidence.

- A. I just casually picked up these copies at times merely to pass away time.
 - Q. You mean here in this office? A. Yes, sir.
 - Q. What brought you here?
 - A. I was called here for various purposes.
 - Q. What purposes were you called here for?

Mr. McCLANAHAN.—I object to the question as immaterial.

A. Sometimes to answer questions; sometimes I don't know what I was called for.

Mr. FRANK.—Q. You were called here, then, to answer questions concerning the testimony that was to be taken after yours was concluded; is that right?

- A. I don't know.
- Q. Why don't you know?
- A. There have been times when I have been told to come up here, and I never knew the purpose.
- Q. But when you got here you found out the purpose, didn't you? What did you do when you got here?
 - A. Sometimes there was nothing done at all.
- Q. When there was something done, what was done?
- Mr. McCLANAHAN.—What is the object of this examination, Mr. Frank? Will you state it?

Mr. FRANK.—I do not think so; not at the present time not while I am cross-examining the witness.

Mr. McCLANAHAN.—In my view of the matter, it is not cross-examination. I was wondering whether you could make it such by any explanation.

Mr. FRANK.—Q. Answer the question. [1945—1857]

- A. Read the question again, please. (The Reporter reads the question.) I was asked if I told the experts certain things.
 - Q. What things, for instance?
 - A. Regarding the cleaning of this tank, No. 4 tank.

- Q. Is that all?
- A. I suppose there were numerous items. I don't remember just what particular ones.
- Q. Is that all that you were asked, what you told the experts? Weren't you asked other things as to the conditions?
- A. That would be in reference to the conditions; pointing out different items.
 - Q. Who was present at those conferences?
- A. There were different people here at different times.
- Q. Well, mention the people. Whether they were here at different times or all at the same time, with whom you had those conferences.
- Mr. McCLANAHAN.—What conferences do you refer to, Mr. Frank?

Mr. FRANK.—To the ones he testified to.

Mr. McCLANAHAN.—He has referred to visits to this office, but I do not know that he referred to conferences at all.

Mr. FRANK.-Q. Go on, Mr. Kinsman.

- A. You might say everyone connected with the cause, except Captain Matson, when I was here.
 - Q. Since your examination in this case?
 - A. I think so.
- Q. Have you and Mr. Gardner gone over the matter together since your examination in this case?
 - A. I have talked with Gardner about the case, yes.
 - Q. Here in this office? A. Yes, sir.
 - Q. When? A. Since I testified. [1946—1858]
 - Q. Since you have testified? A. Yes, sir.

- Q. You have done so within the last 10 days, have you not? A. Yes, sir, I think I have.
 - Q. Frequently? A. Twice at the outside.
 - Q. Gone over the details with him?
 - A. Yes, sir; I have gone over some of them.
 - Q. Well, what details did you go over with him?
- A. Why, I think the cleaning of that No. 4 tank for one. Probably others. I don't remember just now what the conversation was.
- Q. You went carefully over the whole business, did you not, with him so as to refresh his recollection as much as you could on everything that you thought material or that he thought material?
 - A. I will not say the whole thing; no.
 - Q. That is the best answer you can give?
- A. Yes, sir, it took us many days to go over the whole thing.
 - Q. Initially?
 - A. I mean when we went over it in the first place.
 - Q. That is what you mean? A. Yes, sir.

[Testimony of Charles W. Saunders, for Respondent (Recalled).]

CHARLES W. SAUNDERS, recalled for the respondent.

- Mr. McCLANAHAN.—Q. Captain Saunders, have you read over your testimony given in this case?
 - A. Yes, sir.
- Q. Do you wish to make a correction in regard to the same? A. I wish to make one correction.
 - Q. What is it?

(Testimony of Charles W. Saunders.)

A. In the testimony where I said that the conversation in regard to the tank-top took place at the same time as the conversation in regard to the smoke-stack. After an examination of the time-book I am convinced that I made a [1947—1859] mistake as to that date. The tank-top conversation took place at least a week before that, on the occasion of Captain Matson's previous visit.

Mr. McCLANAHAN.—That is all.

Cross-examination.

Mr. FRANK.—Q. What means did you take, Captain Saunders, to correct your recollection of that?

- A. Simply by giving the matter serious thought.
- Q. Is that all you did?
- A. And studying the time-book, as I said.
- Q. Studying what time-book?
- A. The dates in the time-book.
- Q. What time-book do you refer to?
- A. The time-book in evidence.
- Q. You mean Putzar's time-book?
- A. I mean that time-book, whatever it was.
- Q. What did you find in Putzar's time-book that led you to believe you were in error?

A. That the work on the tank-top commenced about the 2d of September.

- Q. Who called your attention to that?
- A. I don't recollect now just who it was.
- Q. When you left here, did you not consider that you were done with your testimony?
 - A. I hoped so.

(Testimony of Charles W. Saunders.)

- Q. And did you not pass it away out of your mind, any further consideration of it?
 - A. I gave it very little more thought at the time.
- Q. Then somebody called your attention to this and told you you had probably made a mistake about it; is that right?
- A. They called my attention to that and asked me if I had not made a mistake. [1948—1860]
 - Q. Who called your attention to it?
 - A. I don't recollect.
- Q. How long ago was it that your attention was called to it? A. Probably a week or so ago.
- Q. You don't recollect who called your attention to it?
 - A. I could not swear who called my attention to it.
- Q. That is remarkable, Captain. Your recollection is very clear on everything in this case that happened 2 or 3 years ago, and now you have no recollection who talked to you a week ago on this subject.
- A. I could not swear to the man; it was possibly Mr. Diericx or possibly Mr. McClanahan.
- Q. What creates that doubt in your mind, Captain Saunders?
 - A. Because we were together at the time.
 - Q. The three of you together? A. Yes, sir.
 - Q. What were you doing together?
 - A. Well, I could not exactly tell that, Mr. Frank.
 - Q. You could not?
- A. I was with them more by accident than anything else.
 - Q. Where at?

(Testimony of Charles W. Saunders.)

- A. I think I came up here with Mr. Diericx. I had asked Mr. Diericx if I could not look over my testimony and that was the time I simply came up here to read over my testimony.
- Q. What was your purpose in coming up here to read your testimony? A. Natural interest.
 - Q. Natural interest? A. Certainly.
- Q. And then they pointed out to you this discrepancy, is that so? A. I think it was at that time.
- Q. So you have no recollection of the conversation itself, but you are fixing a time now argumentatively, is that not right; because you find in the time-book certain work was done at a specific time you conclude the conversation must have been [1949—1861] at some earlier date than you originally testified to? A. Certainly.

[Testimony of Fred A. Gardner, for Respondent (Recalled).]

FRED A. GARDNER, recalled, direct examination resumed:

Mr. McCLANAHAN.—Q. Mr. Gardner, will you please examine No. 109 of "Kinsman Exhibit No. 2" and state whether you saw or did not see that matter, and whether it belongs to the specifications, or to the minor contracts, or whether you figured on it as an extra.

- A. We saw this wrench and figured on it as an extra.
 - Q. 110. A. Saw it and figured on it as an extra.
 - Q. 111. A. Saw it and figured on it as an extra.

Q. 112. A. Saw it and figured on it as an extra.

Q. 113. A. Saw it and figured on it as an extra.

Q. 114.

A. We saw these boards and gauges and figured on them as an extra, with the exception of one ammonia-gauge, to the best of my recollection, which we did not figure on.

Q. 115.

A. We saw this and figured on it as an extra.

Q. 116.

A. Saw this and figured on it as an extra.

Q. 117.

A. We did not see the actual brass valve seats and discs, but from our general knowledge of valves of this description and from information given by Mr. Kinsman and sketches supplied we were enabled to make an intelligent estimate, which we figured on as an extra.

Q. 118.

A. Saw this and figured on it as an extra.

Q. 119.

A. Saw this and figured on it as an extra.

Q. 120.

A. We saw this work and figured on it as an extra. Our attention was called to the fact that these had been [1950—1862] changed from one location on the bulkheads to another, I think from the starboard side to the after end of the thrust recess, to the best of my recollection.

Q. 121.

A. To the best of my recollection we saw this work

(Testimony of Fred A. Gardner.) and figured on it as an extra.

Q. 122.

A. We interpreted this as meaning two strong backs instead of strove backs. We saw them and figured on them as extras.

Q. 123a.

A. We saw these holes and figured on them as extras.

Q. 123b.

A. We saw this patch and figured on it as an extra.

Q. 124.

A. We saw this work and figured on it as an extra.

Q. 125.

A. We considered that this work was chargeable to item No. 9 of the original specifications, in that it would be necessary to remove these heads and possibly renew the jointing materials.

Q. 126.

A. We saw this work and figured on it as an extra.

Q. 127.

A. We were never able to find any drawings and sketches, and therefore did not figure on it as an extra.

Q. 128.

A. We saw this air-pump body and condenser, and while we did not actually see the joints and faces where joints were made, we considered that it was chargeable to item No. 1 of the original specifications.

Q. 129.

A. We saw this balance-cylinder, but did not see

the piston and bull-ring, but this being a common attachment in connection with the low pressure valves to act as a counter-balance, had it been necessary we

it, but we considered it was chargeable to item No. 2 of the specifications in the compensation work.

Q. 130.

A. We did not see the face where chipped nor did we see the square washer or locking-nut on the valve, though we did see a spare washer and nut, and the spare valve-stem that had been lengthened. We considered that this work was chargeable to item No. 2 of the original specifications.

Mr. FRANK.—Q. Let me interrupt you for one moment, Mr. Gardner. You are referring, now, to the instructions that were given you by Mr. Mc-Clanahan and Mr. Diericx, to make that answer, are you not?

A. No, sir, I am depending upon my recollection assisted by this paper, the first part of this specification which describes the work.

Q. You are following now the instructions which were given to you by Mr. McClanahan and Mr. Diericx?

Mr. McCLANAHAN.—I object to that question upon the ground that there is no such paper before the witness. "Gardner Exhibit No. 1" is before the witness.

Mr. FRANK.—Q. That is the paper you referred to, did you not?

A. This paper was given to me at the beginning

of this work for the purpose of assisting me to determine what had been done, and later to examine the work as actually having been done.

Q. You are using that paper now for the purpose of your present testimony, and your hesitancy, your correction was due to the fact that you turned to consult that paper. Is that not the fact?

A. My hesitancy was due to the fact that I did not remember which particular number to refer to [1952—1864] though I have a clear recollection of this work having been done and how it was done and so figured on it. I simply refer to this to refresh my recollection as to the number of the item. I could say the general specifications if you prefer it without referring to it.

Q. By "this" you mean Exhibit No. 1 to which I am referring? A. Yes, sir.

Mr. McCLANAHAN.—Are you through with your cross-examination, Mr. Frank?

Mr. FRANK.—Yes.

Mr. McCLANAHAN.—Q. I now ask you to answer the question as to items 131, and in connection with that I will suggest to you that if you can refresh your memory by referring to any paper in evidence in this case you may do so.

A. We saw this work and considered that it was covered by item No. 4 of the original specifications as compensation work, though at the present time I am inclined to think that we allowed the Challenge metal as an extra.

Q. The Challenge metal for what?

- A. The Challenge metal for the shoes.
- Q. For the new shoes?
- A. For the new shoes. Of course I may be mistaken in regard to this, as we may have made several estimates at various times, and looked at these various questions from different standpoints, and I could see no occasion for really charging this Challenge metal as an extra, but to the best of my recollection and belief Mr. Kinsman informed us that there had been an agreement to the effect that they would allow them for the Challenge metal. I do not recall just at what time this was now.
- Q. Can you state more definitely whether you did or did not [1953—1865] make an allowance for the Challenge metal.

A. By referring to what I believe to be our detailed estimate in regard to this case, I see no allowance for the Challenge metal on this estimate, although in reconsidering this estimate as a whole we made certain allowances and deductions, and I think this particular item came under that head.

Q. Reconsidered since the letter of April 29th?

A. Reconsidered since the letter of April 29th.

Mr. FRANK.—Q. While you are on that point, if you did, point it out.

Mr. McCLANAHAN.—I object, Mr. Frank, to your interrupting my examination of this witness. At the proper time you will have your turn.

Mr. FRANK.—The witness says he thinks so. That may be construed that he does or does not.

Mr. McCLANAHAN.-You can make what you

(Testimony of Fred A. Gardner.) choose of this at the proper time.

Mr. FRANK.—If you want to extend this examination you are perfectly welcome to do it.

Mr. McCLANAHAN.—All right.

Q. No. 132, Mr. Gardner?

A. We saw this work and considered that it was covered by item No. 5 of the original specifications as compensation work. This is another item that has been the subject of consideration since the estimate of April the 29th, and as this is compensation work, or rather although this is compensation work, and we could see no reason for allowing bronze or Challenge metal, we did allow for bronze and Challenge metal owing to the fact that Mr. Klitgaard, I think it was, stated that he had agreed to pay for the Challenge metal in connection with this work, [1954—1866] also the bronze.

Q. 133.

A. We saw this work and considered that it was covered by item No. 5 of the original specifications.

Q. 134.

A. We saw this cylinder and considered that the work was covered by item No. 6 of the original specifications.

Q. 135.

A. We saw this patch and considered that it was covered by item No. 7 of the original specifications as compensation work.

Q. 136.

A. We saw this coupling and considered that the

(Testimony of Fred A. Gardner.) work was covered by item No. 8 of the original specifications.

Q. 137.

A. We saw this crank-shaft and considered that the work was covered by item No. 9 of the original specifications.

Q. 138.

A. We saw this work and considered that it was covered by item No. 10 of the original specifications. Although we had not seen this work at the time of sending you our estimate under date of April 29th, we have since seen it.

Q. 139.

A. We have seen these valves and strainers since April 29th, and we considered that they were covered by item No. 10 of the original specifications.

Q. 140.

A. We saw this work and considered that it was covered by item No. 11 of the original specifications.

Q. Since the letter of April 29th, which contains your original estimate, have you or have you not, in conjunction with Mr. Heynemann, reconsidered any of the items contained in the 140 items which you have just gone over?

A. We reconsidered all of the items that we had not been able to see at the time of our estimate of April 29th. We made certain allowances for what we considered possibly high, or low estimates, and we made corrections accordingly, or rather contemplated [1955—1867] making corrections, but finding that the balance to the best of my recollection at

the present time was only a matter of some \$38, or something less than \$50, I don't remember the exact amount, we decided to make no change in our original estimate.

- Q. Since your original estimate of April 29th, have you, aside from seeing work that you had not seen at that time, received information relative to items which you had not when you made your original estimate?
- A. Read that question please, Mr. Reporter. (The Reporter reads the question.) Yes, we had some conversation with Mr. Klitgaard, who informed us that we had not been just in some cases to the United Engineering Works, in the manner of not allowing them certain material which he stated he had agreed should be paid for as an extra.
- Q. If there are differences in the testimony which you have given as compared with the matter contained in Heynemann Exhibit No. 4, relative to your action in allowing this or that item as an extra, or not allowing it, have you any explanation to make of that difference, or those differences?
- A. To the best of my knowledge and belief those differences are covered by the reconsideration of the estimate previously referred to.
- Q. State whether or not after your final conference with Mr. Heynemann, you and he were in accord as to all of the items contained in "Kinsman Exhibit No. 2."

A. To the best of my knowledge and belief we were.

Q. If there are differences relative to those items between your testimony and Mr. Heynemann's how do you account for [1956—1868] that?

A. As I said before, we reconsidered our estimate, and have estimated on it at different times, and it is possible that one or the other's memory may not be absolutely reliable, and this late date I can see there is no reason for it casting any reflection on the estimate made on April 29th, at which time we had all the information necessary for making this estimate.

Mr. FRANK.—Counsel for defendant, aren't you?

A. I do not quite understand you, but I am pretty dense.

Mr. McCLANAHAN.—I must make the same criticism of counsel's remark, I do not understand it.

Q. Mr. Gardner, will you turn to item No. 79 of "Kinsman Exhibit No. 2." Mr. Heynemann says that that item belongs to item No. 9 of the specifications. You have stated that it was figured on as an extra. What have you got to say with reference to the conflict in your testimony?

A. Relative to that particular item and the one following, No. 80, it is really my honest opinion and belief at the present time that the figures in connection with that estimate were entered in the wrong column.

Q. What column do you refer to?

A. I refer to the column on "Heynemann Exhibit 4." Of course I do not know that to be the fact, but to the best of my knowledge and belief we figured on that as an extra.

Q. That is more than an answer to my question. My question referred to the conflict between your testimony and the testimony of Mr. Heynemann, he having stated that it was a part of item No. 9 of the specifications, and you having stated it was an extra. Do I understand you to say that you believe yourself to be right in that matter?

A. I do. [1957—1869]

- Q. Turn to item No. 96. Mr. Heynemann has stated that that belonged to the second specification, specification No. 2, and you have stated that it was an extra. What have you to say with reference to that conflict?
- A. I am inclined to think that Mr. Heynemann's memory in connection with that is better than mine. I remember that there was considerable discussion and lack of decision on our part at the time as to where it was correctly chargeable. I think it was finally considered to be covered as testified to by Mr. Heynemann.
- Q. And that your testimony is incorrect in regard to that item?
 - A. That my testimony is incorrect.
- Q. I call your attention to item No. 131, where you have expressed some doubt as to whether Challenge metal was figured on by you as an extra. Was that matter discussed by you and Mr. Heynemann?
 - A. It was.
- Q. And you simply cannot remember whether you allowed it as an extra?
 - A. I don't remember whether we allowed it as an

(Testimony of Fred A. Gardner.) extra or not.

Q. If Mr. Heynemann says it was allowed as an extra, you would not want to dispute that?

Mr. FRANK.—That is too palpably bad, Mr. Mc-Clanahan.

A. I would have to conceive that his memory is quite as good as my own.

Mr. McCLANAHAN.—Q. Mr. Heynemann has stated in his evidence at page 1,657, that the H. P. Eccentric straps were remetalled; what have you got to say with reference to that statement?

A. I am inclined to think that Mr. Heynemann is mistaken in regard to the high pressure eccentric straps being remetalled. I have no recollection of seeing that they had [1958—1870] been remetalled.

Q. Mr. Gardner, was it possible for you to know from an inspection of this work whether or not it was repair work?

A. It was very evident that it was repair work, taking the work generally.

Q. I call your attention to Schedule 2 of the libel and ask you whether in making your estimate you made an allowance for that schedule, making your estimate of the value of all the work performed by the United Engineering Works.

A. I would not be prepared to answer that question without referring to the estimate submitted to you on the date of April the 29th.

Q. Don't you know now from memory what you did with those minor schedules?

A. There were some of them, just which ones they

are I don't recall at the present time, that we were under the impression had been paid.

- Q. You mean on the date of April 29th?
- A. On the date of April 29th.
- Q. Have you since been told differently?
- A. I have since been informed that they have not been paid.
- Q. Since then you have made an estimate on the value of the entire bill of the United?
 - A. Yes, sir.
- Q. Have you included Schedule 2 in that estimate? Mr. FRANK.—Q. What is that that you are consulting, Mr. Gardner?
- A. This is a recapitulation of our estimate under date of April 29th.
 - Q. Is it an exhibit in this case at all?
 - A. I really don't know, sir.

Mr. McCLANAHAN.—Q. What is the answer to the question? [1959—1871]

Mr. FRANK.—I am objecting to the witness using a paper handed to him by counsel for the purpose of enabling him to answer the question.

Mr. McCLANAHAN.—Q. Do not look at the paper, Mr. Gardner.

Mr. FRANK.—He has looked at it now thoroughly sufficiently, I suppose.

Mr. McCLANAHAN.—Read the question, Mr. Reporter.

(The Reporter reads the question.)

A. To the best of my knowledge and belief we have.

Q. Mr. Gardner, I hand you "Libelant's Heynemann Exhibit No. 1," consisting of two letters, and ask you if the second letter, the one without the pencil notations on it, is your estimate of the value of the work done by the United Engineering Works on the "Hilonian" made on April 29th, 1910.

Mr. FRANK.—I do not think that is the situation, Mr. McClanahan. That last remark of yours does not fit in.

Mr. McCLANAHAN.—Read the question to the witness, Mr. Reporter.

(The Reporter reads the question.)

A. The amount of \$21,985.49 was our estimate of the value of the work performed by the United Engineering Works on the steamship "Hilonian," but at that time we were under the impression that three bills had already been paid.

Q. What bills were they?

A. And were not included in this estimate. These bills are one of September 24th, 1909, for miscellaneous material supplied, the amount of the bill being \$170.11. Another was a bill of October 30th, 1909, "One spare low-pressure piston follower" and "One spare set of high-pressure rings," the amount of the bill being \$226.35, and a bill under date of October 25th, 1909, [1960—1872] for sundry overhauling, the amount of the bill being \$540.61.

Q. Have you made an estimate since the estimate of April 29th, 1910?

A. No complete estimate; no.

Q. Can you state, now, the value of the work done

by the United Engineering Works to the "Hilonian," the work being the work shown by Schedule 1 to 10 of the libel.

- A. I now consider the value of this work to be, including the three bills above referred to, \$22,922.56.
- Q. In arriving at that estimate, what did you do in making your figures with the original bid of the United Engineering Works covering the specifications shown by "Saunder's Exhibit No. 1"?
- A. What did we do with the bid? I don't quite understand what you mean by that.
- Q. Did you in that figure of twenty-two odd thousand dollars figure on the specification work?
- A. No, sir. We took the original quotation, which was, to the best of my recollection, eleven thousand and odd dollars. I do not remember the exact amount.
- Q. Can you refresh your memory by that letter (handing)? A. \$11,749.
 - Q. What did you do with that?
- A. We took it as we stood as covering the original specifications.
- Q. It is included, then, in your estimate of \$22,000 and odd? A. It is included in that estimate.
- Q. What did you value the extra work which you have testified to as being contained in "Kinsman Exhibit No. 2"?

Mr. FRANK.—Is that not all in the exhibit in the report? Are you just reproducing it in the record from that report?

Mr. McCLANAHAN.—What is that?

Mr. FRANK.—Are you just reproducing that from the report, [1961—1873] having the witness read out from the report into the record?

Mr. McCLANAHAN.—It is quite evident what I am doing.

Mr. FRANK.—That is what it seems to me you are doing.

Mr. McCLANAHAN.—Q. Will you answer the question, Mr. Gardner?

A. I do not pretend to remember the figures.

Mr. FRANK.—Q. You are just simply reading the exhibit. Is that right?

A. I am refreshing my memory as to what my estimate was made on April 29th. The extra work was estimated to be worth \$6,280.50, plus an arbitrary allowance of \$2,000, for overtime, making a total estimate for extra work \$8,280.50.

Mr. McCLANAHAN.—Q. You have been asked to assume, Mr. Gardner, that the crank-shaft called for for removal in item No. 9 of the specifications was not removed. Did you or did you not make an allowance for its nonremoval from the bid of \$1,749?

A. That question refreshes my memory in connection with the bid of eleven thousand and odd dollars, that we did not use that as a whole, but considered that the nonremoval of the crank-shaft was worth \$1,398.25.

Q. With that exception you did use the bid of \$11,749?

A. With that exception we did use the bid of \$11,749.

- Q. Your answer to my question is then that there was an allowance made for the nonremoval of the crank-shaft? A. There was.
 - Q. How much was it? A. \$1,389.25.

Mr. FRANK.—Q. You are not even reading correctly, Mr. Gardner.. A. I acknowledge the corn.

Mr. McCLANAHAN.—Q. What did you do with that \$1,398.25 in your estimate?

- A. We considered it as a benefit to the Matson Navigation Company. [1962—1874]
 - Q. To the Matson Navigation Company?
 - A. Yes, sir.
 - Q. By "benefit" do you mean "credit"?
- A. In other words, that the job should not have cost as much as \$1,398.25, due to the fact that the crank-shaft was not removed from the vessel.
- Q. Did you give the Matson Navigation Company a benefit of anything else in your estimate of \$22,000 and odd?
- A. I gave them credit for a certain amount of scrap valued at \$535.76.
- Q. Mr. Gardner, what did you figure on the gudgeon work which was done on the "Hilonian" to be worth. Do you remember that?
- A. I don't remember the exact figure. It was in the neighborhood of \$2,100.
- Q. Did you make any allowance in that figure for drydocking, extra drydocking of the ship?
- A. Something over \$1,300, to the best of my recollection.
 - Q. Then you did make an allowance?

A. We did.

Q. Would it have been in your judgment practicable, Mr. Gardner, for the United Engineering Works to have kept track separately of the work which was performed under the original specifications, and the work performed under the minor contracts or schedules of the libel, and the work which you have designated as extra work?

A. I think with a reasonable number of timekeepers that it would have been practicable.

Q. In your opinion, would it have been difficult at all?

A. It would have been more difficult than to have kept it all under one number; not impossible to be done by any manner of means in my opinion.

Q. In your estimate of \$22,000 odd, did you make an allowence for the whole of Schedule 4 of the libel? Just answer the question yes or no, Mr. Gardner, so that we can make progress. [1963—1875] A. I will have to refresh my memory.

Mr. FRANK.—Q. You are refreshing your memory again, Mr. Gardner, from the instructions given you by Mr. McClanahan, are you not?

A. I am not reading the instructions. I am reading the specifications. To the best of my recollection we did not allow for the work on thrust-collars, which we considered was covered by item No. 9 of the original specifications.

Mr. McCLANAHAN.—Q. What is the amount of the thrust-collar work as shown by Schedule No. 4 of the libel, which you did not allow?

A. \$146.88. We did not allow for the grinding off piston rod entirely, although we did allow for its being turned up, as in making our examination of the rod, the tool-marks were still in evidence, which led us to believe that the rod had not been ground.

Q. What item are you now referring to?

A. The item of \$50. "Grind off I. P. piston-rod as agreed."

Q. What deduction from the fifty-dollar item as testified to from Schedule 4, did you make in making your estimate of \$22,000 and odd?

A. To the best of my recollection about \$25.

Q. Turn to Schedule 9 of the libel. Will you state whether you, in your estimate of \$22,000 and odd, made an allowance for that entire bill?

A. We did not allow the entire amount of \$60, for enlarging casings. I really don't remember positively, but I think we did not allow for the item of \$180, as we considered it was covered by the making and installing of new smokestack for \$900.

Q. Mr. Gardner, will you give us now your opinion as to whether that item of \$180 is covered by the contract for the [1964—1876] making and installation of smokestack?

Mr. FRANK.—I object to the opinion of this witness on what is covered by a contract. The terms of the contract control. The trouble with this testimony is, you are not only trying to build up amounts but are trying to make contracts for us as well as decide the whole case.

A. The bill reads—

Mr. McCLANAHAN.—Q. Let me interrupt you,

Mr. Gardner. The bill speaks for itself. We can have it read. Answer the question whether in your opinion that item of \$180 is properly a part of making and installing of a new smokestack?

A. I do not think it is a part of it.

Mr. FRANK.—You should not interrupt the witness, Mr. McClanahan, but allow him to make his own argument.

Mr. McCLANAHAN.—Q. State whether or no in your opinion the item of \$60 for enlarging the casing is a part of the making and installing of the new smokestack.

Mr. FRANK.—The same objection.

A. In my opinion it is not a part of making and installing the new smokestack.

Mr. FRANK.—Q. It is not? A. It is not.

Mr. McCLANAHAN.—Q. With those exceptions testified to relative to Schedule 4 and Schedule 9, state whether or no you included in your estimate of \$22,000 odd, the balance of Schedules 4 to 10, inclusive.

A. With the exceptions referred to we did include the balance of schedules 4 to 10 inclusive.

Q. Mr. Gardner, I will refer you to "Respondent Matson's Exhibit No. 1," and ask you whether the work called for on the tank-tops embodied in that proposal was greater or less [1965—1877] than the work which was actually performed on No. 4 tank-top on the "Hilonian"?

A. Our examination of the tank-top herein referred us led us to believe that the amount of work

here described was not performed.

- Q. By "here" described you refer now to "Matson Exhibit No. 1"?
 - A. "Matson's Exhibit No. 1."
- Q. That is, the Exhibit No. 1 calls for more work than was done?

 A. That is my opinion.
- Q. Will you please take the specifications "Saunders Exhibit No. 1," calling your attention to the last sentence of specification 9? I will ask you whether or no item 45 of "Kinsman Exhibit 2" is or is not to be considered as a part of that requirement of the specification.
- A. I consider that item No. 45 is covered by item No. 9 of the original specifications.
- Q. Can you state, Mr. Gardner, whether the sum of \$11,749, which was the original bid of the United Engineering Works for the work scheduled under "Saunders Exhibit No. 1," is a fair and reasonable value for that work?
- A. We considered it a fair and reasonable value for the work, in view of the fact that we ascertained that it was the lowest of two or more bids at the time the work was first contemplated.
 - Q. Is that the only basis for your belief?
- A. And of our investigation of the work generally. We were of the opinion that it was a reasonable price.
- Q. In this work which is covered by these various schedules of the libel was there any work done requiring the use of a bending-slab?
- A. In connection with the schedules, did you say, 1 to 10?

Q. Yes.

A. The only thing that I recall that it might [1966—1878] have been used for was possibly in bending the angle-irons on the smokestack.

- Q. I should like to have you make a little more definite answer, even if it requires a reinspection of all those exhibits. I want your opinion on that more positively. If you are now examining Schedule No. 1 I would suggest that "Kinsman Exhibit No. 2" is a copy of it, and it might be more easily examined. Having examined the schedules, Mr. Gardner, can you now make your answer a little more positive or definite?
- A. I can see no occasion for the use of a bendingslab except in connection with the making of the smokestack, which is called for in Schedule 9.
- Q. Would there be any use for the bending-slab in the angle-iron work on the tank-top margin?
 - A. I think not.
- Q. What about the use of the slab on the angles and floor-gratings?
- A. I think they might be gotten out without the use of a slab, although possibly a slab might have been used to a small extent.
- Q. Might the same answer be made in regard to the angle-iron on the tank-top margin?
- A. It might possibly have been used, but I hardly think it absolutely necessary.
- Q. Taking the possible use of the bending-slab on the tank-top angle-iron, and on the floor-gratings and on the smokestack, would such use, if it had been

made, have consumed 79 hours of time if made properly?

- A. I would hardly expect that it could have been used reasonably for that length of time in connection with the work that was done; in fact, I do not consider that it was necessary—absolutely necessary—for anything except the smokestack, [1967—1879] although it might have been used.
- Q. What would be your approximation of the time necessarily used on the smokestack?
 - A. Surely not more than a day.
 - Q. How many hours would that be?
 - A. It could be done in a day of eight hours.
- Q. And how long would its use have properly been made for the tank-top, if it had been used?
- A. Probably not more than 4 or 5 hours, I should say.
 - Q. And for the floor-gratings, if it had been used?
- A. The templates having been properly prepared I should not consider that they could have used it for more than a day and a half.
- Q. By "a day and a half" you mean how many hours? A. Approximately 12 hours.
- Mr. McCLANAHAN.—You may cross-examine, Mr. Frank.

Mr. FRANK.—Not to-day.

Mr. McCLANAHAN.—Cannot you commence his cross-examination?

Mr. FRANK.—There is no use in my commencing it; there is only a half an hour left this morning. Cross-examination does not consist in asking a great

many words and a great many questions.

Mr. McCLANAHAN.—I object to a continuance before the noon hour.

Mr. FRANK.—I will go on on Monday morning.

Mr. McCLANAHAN.—We cannot go on on Monday. I have an engagement at Redwood City in the Moore divorce case, which takes me there. I should like to go on to-day.

Mr. FRANK.—Tuesday, then. [1968—1880]

Mr. McCLANAHAN.—I cannot go on on Tuesday.

Mr. FRANK.—Wednesday.

Mr. McCLANAHAN.—I cannot go on on Wednesday, that I know of.

Mr. FRANK.—When can you go on?

Mr. McCLANAHAN.—I cannot tell you. You understand my situation. It seems to me you ought to use what time you can.

Mr. FRANK.—This half an hour could not profitably be used at this time in cross-examination.

Mr. McCLANAHAN.—Cannot you go on this afternoon?

Mr. FRANK.—Not to-day. The time could be used up, but that is not the object of cross-examination.

Mr. McCLANAHAN.—I am ready to go on now, and will be ready to go on this afternoon.

Mr. FRANK.—Oh, I know.

Mr. McCLANAHAN.—Do you decline to go on, Mr. Frank?

Mr. FRANK.—Yes, to-day.

Mr. McCLANAHAN.—I shall have to let you know when I can take up the matter again.

Mr. FRANK.—Let me know at least a day ahead so that I can prepare for it.

Mr. McCLANAHAN.—I will try and do that.

(An adjournment was here taken to a day to be hereafter set.) [1969—1881]

Wednesday, May 1, 1912.

FRED A. GARDNER, cross-examination.

Mr. FRANK.—Q. Mr. Gardner, what was the period of time, or between what dates were you at the Union Iron Works?

A. The dates that I was at the Union Iron Works, I could not tell you right now. You could get it from the Union Iron Works, I suppose.

Q. Couldn't you tell us within reasonable limits?

A. I could refer to my direct examination. I called attention to approximately the time, seven or eight years, I think, or something of that kind. I do not recall just exactly what I said at that time, but that was as near as I remembered it at that time.

Q. I am not asking you for that. I am asking you for the dates, between what dates was it that you were there? Between what dates? I am not asking you for the exact date, but approximately.

A. Let me see. I think it was in 1898 that I went there first, and in 1906 or 1907, I think, that I severed my connection with them—1907 I think it was.

Q. 1898, then, to about 1907. Is that right?

A. It is purely a matter of memory. I could look it up.

- Q. Well, that is fairly accurate, isn't it?
- A. I don't know. Not as accurate as it could be by looking up the absolute records of the Union Iron Works; surely not. It would be depending upon my memory.
- Q. Well, have you any idea that that is materially wrong? A. No. [1970—1882]
- Q. Who was the head of the works during that time? A. What do you mean?
 - Q. Just what I have asked you.
- A. I think Mr. Henry Scott was president part of the time; he was chairman of the board part of the time. Mr. Forsyth was president of the works part of the time, and Mr. McGregor was president of the works part of the time.
 - Q. Forsyth was part of the time? A. Yes.
 - Q. McGregor was during the latter end?
 - A. Yes.
- Q. Was there anybody in charge, direct charge of the mechanical department at that time? I am not speaking of the presidents; I mean the active man in the mechanical part of the work.
- A. Well, I don't know exactly what you mean. There were several departments, of course; there is the hull department, drafting department, engineering department, and so forth.
- Q. What was your office, if you had any, at that time?
- A. Part of the time I was assistant to the engineer-in-chief, and part of the time I was engineer-in-chief myself.

Q. That was all the positions you occupied?

A. I occupied the position of guarantee engineer for the steamer "Chitose."

Q. Who was the engineer-in-chief when you were assistant?

A. Mr. Forsyth. When Mr. Forsyth was absent, during a great deal of the time, due to illness, being over at Carlsbad, and other places in the east, on account of his health, I assumed responsibility of his work during that time.

Q. When was Mr. Dickie there? Was he there during your time?

A. Mr. Dickie was there up to the time Mr. Forsyth became president of the works.

Q. What I want to get at is, was Mr. Dickie's term coincident [1971—1883] with your terms?

A. He was there all the time I was there up to Mr. Forsyth's becoming president, and then he severed his connection with the concern.

Q. How long was it after you started there that Forsyth came there?

A. I really could not tell you that without referring to the records of the Union Iron Works. They can all be procured there. Due to the fact that my duties as assistant engineer were so very similar to that of the chief engineer, I did not realize when the change took place, as far as that is concerned.

Q. So you have no idea of it at the present time?

A. No.

Q. So as to give us any approximate idea of it?

A. I can refer you to the Union Iron Works,

(Testimony of Fred A. Gardner.) where you can get the exact information.

- Q. I understand. I do not need those references because I can sift out the sources of my information afterwards.
- A. There is nothing to impress it upon my memory, therefore I cannot answer absolutely. There were a number of changes took place, as far as the concern itself was concerned, it went from the old Union Iron Works to the United Shipbuilding Combine, and from that to Mr. Schwab, and various changes that I am not familiar with; it did not affect my position at all, therefore I was not impressed by them.
- Q. Do you remember during the time that you were connected with them where figures were made upon the repairing of a vessel where the United Engineering Works suffered a very large loss?

Mr. McCLANAHAN.—You refer to some specific case, Mr. Frank?

Mr. FRANK.—The question explains itself. Let the witness answer it. [1972—1884]

- A. I really do not know what you refer to. There may have been cases in which the United Engineering Works have suffered severe losses, and so far as I am concerned I do not know anything about that part of it. I do not know what you refer to. If I knew what you referred to I would try to answer the question.
- Q. You say there are many cases in which they suffered severe losses. What I am trying to get at is, within your recollection were there or were there

not many cases in which the estimates were very far below the cost of the work when it was actually done?

A. Whose estimates?

- Q. I am not fixing any person's estimates at the present time. I am asking whether or not the estimates that were made for the work at the Union Iron Works on many occasions were very far below the actual cost of the work, within your knowledge?
- A. Not out of my absolute knowledge; only a matter of hearsay. I have heard that they lost money on some work that was estimated on.
 - Q. Why is it only a matter of hearsay?
 - A. Because I had no access to the books.
 - Q. Do not know what the result of the work was?
- A. That is it exactly. I simply took the statement of the secretary, or some clerk in the office.
- Q. In your experience in the Union Iron Works you had in no case any means of ascertaining whether or not the cost of the work corresponded with or exceeded the estimates?
- A. Only by hearsay. I kept no record of that personally. I assume that the work I estimated on was satisfactory, as I did not hear anything to the contrary.
 - Q. That is all you know?
- A. You generally hear all the [1973—1885] troubles that are coming in.
- Q. That is all you have to judge from, Mr. Gardner?

 A. That is all I have to judge from.
- Q. I suppose you assume, then, that you were peculiarly fortunate, more than anybody else who es-

timates on such work?

Mr. McCLANAHAN.—I object to counsel calling for an assumption.

Mr. FRANK.—Q. Is that the result of your reply?

- A. I never assumed anything of the kind, no.
- Q. Now, in making the estimate in this case, do you remember the protection plates on the stern of the vessel?
- A. I don't recall the details of it just now, but I think there are some sketches in evidence here that might refresh my memory, if I could look at them, I could probably tell you.
- Q. Well, I will refer you to the 37th item, in Kinsman's Exhibit 2: "Supplied and secured plates around stern frame and line plates around stern tube boss." Do you remember that?
- A. I think I would be able to remember it better if I would be able to refer to the sketches in the matter.
 - Q. Did you make the sketches?
- A. I would not be positive whether I did or not. I made some of them. I probably did make sketches. Whether I made these particular sketches or not, I would not be positive.
 - Q. Where are the sketches that you refer to?
- A. I said probably they would assist my memory. No, at the time that this particular item was prepared, I suppose we had not seen these plates.
 - Q. Well, did you see them?
 - A. But we did see them later. As near as I re-

member it was in September, or something of that kind, 1911. [1974—1886]

- Q. What was the nature of those plates as you remember them?
- A. As near as I can recall they were just ordinary protection plates.
- Q. That would not describe them to anybody, certainly not to the Court, who does not know what an ordinary protection plate is?
- A. It seems to me there were sketches of those some place or other. Here is a sketch that describes it very well.
- Q. That is Libelant's Exhibit, Heynemann No. 3, the last sketch? A. Yes.
- Q. Well, now, you may use that sketch to aid you; tell us so that we can get into the record now what the protection plates consist of.
- A. These are protection plates, made U-shaped in sections, extending up and down on the after part of the stern frame, and on the forward part of the stern frame, covering the edges of the shell plating.
- Q. Is that all? Isn't there something more than that, Mr. Gardner?
- A. There was another plate, apparently, on the boss plate in here; I think that is zinc; I am not positive.
- Q. Why do you say that—because you see the memorandum on the sketch?
- A. No, because in looking at this I am reminded when we made our estimate on this, before seeing it, we only allowed for zinc plates, and not for pro-

(Testimony of Fred A. Gardner.) tection plates. This recalls it to my mind.

- Q. Now, the protection plates referred to are the plates that are dotted on the sketch?
 - A. On the stern frame.
- Q. On the sketch on the last page of this Heynemann Exhibit No. 3, is that right?
- A. Yes, that is approximately correct. I do not suppose the sketch is absolutely correct.
 - Q. Now, are those flat plates?
 - A. U-shaped in sections, as I said. [1975—1887]
 - Q. By U-shaped in section you mean—
- A. (Intg.) Plating bent so that if you cut it in two it would represent the letter U.
- Q. In other words, it is a long sheet that is bent into what you might call a trough in length?
 - A. That is right.
- Q. And it is also bent in again to accommodate itself to the changes in the shape of the particular part of the vessel that it is to be applied to, is it not?
- A. Slightly bent to take the fill of the stern frame. Probably it is so shown on this sketch, although I am not positive that this sketch is correct.
 - Q. Well, who made the sketch?
- A. I think Mr. Heynemann made this particular sketch.
 - Q. Well, were you present? A. I was.
 - Q. It is with your concurrence, then, is it?
 - A. Yes.
- Q. What means did you adopt to prepare those plates and shape them up in order to apply them to the stern of the vessel? A. What is that?

- Q. What mechanical means did you adopt to prepare those plates and shape them up in order to apply them to the vessel?
- A. The plates would be heated and fitted from templates taken from the works.
 - Q. You say heated and fitted—
- A. (Intg.) Heated and fitted to this place from templates taken from the works.
- Q. When you say "heated and fitted" how would they be fitted?
- A. Well, they would be literally bent into this shape that you refer to, that is all, and be fitted to place and bolted up.
 - Q. How would they be bent?
- A. By heating them and bending [1976—1888] them.
- Q. How would you bend them when they are heated?
 - A. How would you bend any piece of iron?
- Q. Now, don't parry with me, Mr. Gardner. You are sitting here as an expert to explain mechanical details. Answer the questions as an expert mechanic would answer them. You are supposed to be testifying for those who know nothing about it.
- A. Well, I think that explains it as well as can be explained to a person who as you say is not a mechanic; this metal would be heated and fitted to the form to go into that place.
- Q. How would you fit it, by what mechanical means would you get it?

Mr. McCLANAHAN.-Q. Mr. Frank wants to

(Testimony of Fred A. Gardner.) know how you would bend it.

- A. How you would bend it?
- Q. Yes.
- A. Why, bend it, it could be bolted in place and bent over the form itself, but it was probably bent over a form in the shop or on an anvil, or a horn, or several different ways of bending iron; it might have been bent around a piece of shafting; there are several ways it might have been bent. It might have been made fast to a piece of shafting, a clamp put around, and bent around with this clamp; there are dozens of ways it could be done.

Mr. FRANK.—Q. What did you have in mind as the manner in which it was put down when you figured upon it?

- A. I looked upon it as a job that would be done by an anvilsmith, a flanger—a flanger rather than an anvilsmith; not an anvilsmith.
 - Q. That is the mode in which you figured upon it?
- A. That is the mode in which we figured upon it. [1977—1889]
- Q. What did you allow for time to perform that work?
- A. Well, I will tell you in regard to this, as I will tell you in regard to the entire estimate, that the details of this work were largely made up on the job and have never been kept as to how much time; we made an estimate on this job before we knew what it was; we then made another estimate on the entire job after we had seen it, and we compared the totals of these two estimates and we found that there was

only a difference of some twenty-odd dollars, I think it was \$23, if I remember correctly, in favor of the Matson Navigation Company also, I think; I am not positive about that; and we considered that the total estimate was so very close together that we made no changes in our original estimate. Therefore I cannot tell you the time that was allowed for this work.

- Q. You have no details now in your possession at all for any of the figures that you made?
- A. No, other than the list that has been submitted here, which is not a detail, because each one of those items probably embraces 10 or 15, and some of them 20 items of detail.
- Mr. McCLANAHAN.—Q. By the "list" you mean Exhibit 4 of Heynemann?
- A. I don't remember the numbers. It is the list that Mr. Heynemann submitted here, I believe (after examination) Schedule 4, that is it.
- Mr. FRANK.—Q. Mr. Gardner, I notice upon this sketch that we have been speaking about, that you have a detail of sizes, have you not?
- A. I see no detail of these patches or these protection plates.
 - Q. What is this (pointing)?
- A. That is, I am not positive, but I think it is, the 12-inch radius showing that turn in there. [1978—1890]
 - Q. And on the other side?
- A. I think it is the same; I am not positive in regard to that.

Q. Of the protection plates?

A. Yes, but it does not give the length or width of the protection plates; they are quarter-inch plates, a quarter-inch thick.

Q. Is there no other detail there?

A. I do not see the length of this, nor the length of that (pointing). I am inclined to think that this was put in in more than one piece; I am almost positive of that; it does not show that on the sketch.

Q. What do you mean by more than one piece?

A. That is, more than one piece in length.

Q. That detail would only have to do with the cost of material, would it not?

A. Not at all. It costs a good deal more to make it out of one piece like this than out of several pieces.

Q. I mean the length.

A. No, the labor as well. You can make a piece a foot long a good deal cheaper than you can make a piece that was 7 or 8 feet long, as this appears to be.

Q. Do you know whether or not now you figured upon one piece or several pieces?

A. I tell you, I kept no details of that estimate due to the fact that we made the estimate first, and then corrected up the total.

Q. You said that several times?

A. I think that I gave that in my former testimony.

Q. You have no recollection either of anything connected with it now? A. Not positive; no.

- Q. You could make no figures upon it now of any kind?
- A. No, not at the present without seeing the job again, seeing the job, and standing there alongside of it, and making an estimate as I did in that case, I could very easily do it again. [1979—1891]
- Q. What advantage would there be of seeing the job instead of seeing the sketch?
- A. Because the job itself would be absolutely correct, whereas I do not think the sketch is correct.
- Q. Well, now Mr. Gardner, we will assume that the plate referred to on the after part of this stern bearing was a single plate. Can you give us any figures, then, upon it? A. No.
 - Q. Why not?
- A. Because I don't know what the dimensions are. It does not give the dimensions here.
- Q. Well assume for the purposes of these figures then, Mr. Gardner, that it was, that particular one was, 10 feet in length. Any other dimensions that you wish?
- A. No. I would not be in a frame of mind to figure that out. As far as that was concerned, if I was figuring that I would get in my office and sit down and take out my slide rule and take my time to do and figure it. I am not in a position to sit here and figure on anything, not in the frame of mind to be figuring on things, when we are trying to find out what the answers to your questions should be.
- Q. Is that the frame of mind in which you are testifying, trying to find out what the answers to my

(Testimony of Fred A. Gardner.) questions should be?

- A. Yes, should be, to answer them correctly. I could not anwer them correctly from this sketch.
- Q. Isn't that accomplished when you give me the figures? That is all that is required to answer my questions correctly, is it not?
- A. You are going on the assumption that there is no estimate. As I understand it, you are asking me for figures on a specific case.
- Q. I have asked you for figures, giving you certain dimensions; [1980—1892] now, whether or not they are applicable to the particular piece of work in question is not a matter with which you are concerned. That is for me.
- A. Well, Mr. Frank. as you are assuming several things I suppose I am privileged to assume that I am up here answering questions applying to the steamship "Hilonian" and not on assumed dimensions.
 - Q. Well, you are mistaken about that.
- A. I may be, but if I am, I would like to be instructed, of course.
- Q. I will now take and assume these dimensions and ask you to give us your method of figuring upon it. Now, we will take a piece that is 10 feet long, and 6 inches overlapping on each side of the piece on the after end of this propeller arch. I ask you to give us your figure as to the cost of preparing that and putting it on to the propeller arch.
- A. I do not feel that I could concentrate my mind on this just at the present time, in such a manner as to give you a reasonable idea of the cost of this. If

(Testimony of Fred A. Gardner.)
you desire, I can take my time and make an estimate of this.

- Q. How long a time would it take you?
- A. Oh, I suppose sometime during the day.
- Q. Well, I should like to be present when you make the estimate.
- A. Well, I would not object to that at all, if you want to sit in the same room as far as that is concerned; if I went to make an estimate, I do not see, to begin with, I could not make an estimate because I do not know the form of this stern frame at the present time, it is not shown here, the amount of corrosion that has taken place, for which this plate is put on, so that it could be neatly fitted on; if there was a great deal of corrosion, there is no practical way of sitting [1981—1893] here and making an estimate of that that is of value. You put the ship on the drydock and let me stand there and make an estimate of it as I did before, and I will give you an estimate, and you can be there and everybody else, as far as that is concerned.
- Q. When you made your estimate before the work had been thoroughly performed, had it not, and been finished? You did not see it before the work was finished?
 - A. I did not see it before the work was finished.
 - Q. It was some months after it was finished?
 - A. Some months after it was finished.
 - Q. And after the parts had been painted?
- A. I suppose they were painted. There was not much evidence of it, when we were there; the paint

(Testimony of Fred A. Gardner.) apparently was a poor quality, all gone, as far as I can recall it.

- Q. You think it was all gone? A. Yes.
- Q. Are you sure of that?
- A. I am not positive, but my recollection of it is it was practically all gone, and still corrosion going on there.
 - Q. Still corrosion going on? A. Yes.
- Q. But the corrosion that had been there before the piece was put on, you knew nothing about, did you?
 - A. No.
- Q. And that is the corrosion that you must know now in order to make the figure, is it? A. No.
 - Q. Some new corrosion that happened afterwards?
- A. Because we could tell the amount of corrosion that had already taken place by getting up on the top and looking down, as to what form that post was in, and what form it was in above the place where the putty was put on—you could form some estimate as to how much corrosion had taken place there. [1982—1894]
- Q. Do you mean to say that you could look down inside of the putty between that and the stern frame?
 - A. For a certain distance, yes.
 - Q. Then it is not fitted very closely, is it?
- A. Not usually; any ship is not a watertight job; it has been filled with putty and put on.
 - Q. Filled with putty? A. Yes, to some extent.
 - Q. You could look down under those conditions?
- A. We could look down for some little distance at the top.

- Q. Do you remember looking down to ascertain the amount of corrosion? A. Before what?
 - Q. Before you made these figures before?
- A. To be perfectly exact I do not recall that we got up there and looked down there, but we looked in here (pointing to sketch). We could see them off here at the bottom and assumed they were off a similar amount at the top, which would be an ordinary assumption in making an estimate for doing that work under ordinary conditions.
- Q. What part did the corrosion form in your estimate of the cost of repairing that piece of iron and painting it, as you have suggested, and putting it on there?

 A. It depends how much we found of it.
- Q. Well, I don't care how much you found of it; that is not the point, as to the quantity. What part does it play in that estimate, much or little?
- A. It forms considerable part of the estimate; in view of the fact that these plates are supposed to be put on so as to fit reasonably tight.
 - Q. Fit reasonably tight? A. Yes.
- Q. Do you want us to understand, then, that it forms a part in determining how much the plate should be bent—is that it? [1983—1895]
 - A. To some extent, yes.
 - Q. Is that the only thing?
- A. Well, in fitting the plate generally, you hammer it up in place after it has been roughly formed. If it has a perfectly true surface you could take the template off and put the piece on; not being a true surface you have got to accommodate this plate to

the irregularities of the surface, both fore and aft and athwartship.

- Q. Did you make such an allowance in your figures?
 - A. In the way that it is generally made, yes.
 - Q. How did you make it?
- A. I do not recall. I have not the details that were made at the time.
 - Q. Are you sure you made an allowance?
 - A. I am sure we made such an allowance.
- Q. You have not any idea what the nature of it was?
- A. No, not at the present time. That is several months ago, and there have been dozens of ships since then—or some years.
 - Q. You don't know whether much or little?
 - A. I don't remember whether much or little.
- Q. Now, Mr. Gardner, we will take for instance item 92, where we will not find any corrosion; "removed lower head I. P. valve chest to shop, drilled same for one and a half inch drain plug. Holes drilled in rim of the cover." Just describe first what that head of the valve chest is. If you can, make a sketch of it, that might answer the purpose.

A. Practically all that I remember of it at the present time is that it was a cast-iron head, ribbed to strengthen it; the dimensions of it I could not give you; the thickness of material I could not give you.

- Q. Make a sketch of the shape of it?
- A. I do not think I could give you a correct sketch of the shape of it. [1984—1896]

Q. You don't remember anything about it at all?

A. I remember it from the fact we were standing there and looking at the things on it, and measuring it, and all of the rest of it, and made figures alongside of the job. I have had thousands of things of that kind since then, and I therefore don't remember the details of this particular one.

Q. You don't remember it? A. No.

Q. Would an examination of the sketch in Heynemann Exhibit No. 3 help you at all? A. Possibly.

Mr. McCLANAHAN.—Which sketch?

Mr. FRANK.—Of that particular item, Item 92 in Heynemann Exhibit 3; the sketch under the head of 92.

A. It merely reminds me, as I have already said before, it was a circular head of cast-iron, ribbed for strength; that shows that; that is all.

Q. That is all you can make out of that now?

A. That is practically all.

Q. What was done to that head, Mr. Gardner?

A. Well, when I gave my direct testimony I had recently been on that job again, and I think by referring to the direct testimony you have a clear statement as to what I recollected at that time as to having been done to the head.

Q. Well, haven't you any recollection now?

A. Not as detailed as I had at that time.

Q. Well, give us such a recollection as you have now.

A. No objection to referring to my previous testimony in the matter my direct testimony, is there?

- Q. No, I have no objection to your referring to your previous testimony in the matter, if you can find it. [1985—1897]
- A. I have found it. This is where it had been drilled for an inch and a half drain plug, and these are the holes through the ribs (pointing to the sketch).
 - Q. Does that assist you any now?
 - A. That states what was done here.
 - Q. What states what was done?
- A. This states what was done to her, my testimony. "We saw the intermediate valve chest lower head, and where it had been drilled for an inch and a half drain plug; although we did not see the holes in the ribs of this cover a description was given of the holes, and the size, to the best of my recollection, and we figured on the item as an extra."
 - Q. That is on page 1847? A. Yes.
- Q. That is all then that you remembered then about the transaction?
- A. Possibly not. That was considered an answer to the question that had been put.
- Q. You say previous to giving that testimony you had recently seen the valve head; is that right?
 - A. Yes.
- Q. How long was it before that that you had seen the valve head?
- A. I think it was in September, 1911; I am not sure; as I recall it it was in the year 1911.